

# BERKSHIRE COMBINED SANITARY DISTRICT.

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## REPORT

TO THE RURAL AND URBAN AUTHORITIES

OF THE

COMBINED SANITARY DISTRICT OF

BERKSHIRE,

FOR THE YEAR ENDING DECEMBER 31ST, 1896,

BY

W. T. G. WOODFORDE, M.D., LOND.,

MEDICAL OFFICER OF HEALTH.

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#### NOTE.

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The Registrar General having made 53 registration weeks in the year 1896, the necessary corrections in the estimated populations for the year of the respective sanitary districts—have been made so far as was required for the purpose of calculating the year's rates in accordance with the same—; but this does not affect the “estimated” populations as stated in Tables I., IV., and VI.

## BERKSHIRE COMBINED SANITARY DISTRICT.

IN the following short summary of the sanitary history of the Berkshire Combined District during 1896—the most noticeable fact to be referred to is its remarkably small mortality (being the lowest recorded since the district was formed in 1873), and the small proportion (49·2%) which it bore to the registered births. The “corrected” deaths amounted to only 1,872 for the year, as compared with an annual “mean” of 2,197 for the seven years 1890-96 inclusive, being a reduction of 325 on that number, and equal to a diminution of nearly 15 % on the yearly average of the period. Reference to the Table below will shew that the decrease occurred chiefly in the deaths above sixty-five years of age—which were only 611, as compared with an average of 824 for the septennial period,—but there was also a considerable reduction in the age group 25-65 years, as well as in the number of deaths amongst children under five years of age.

“Corrected” Deaths, Berkshire Combined Sanitary District,  
1890 to 1896, at groups of ages.

Date	TOTAL Correct'd Deaths	Under 1 year	1-5	TOTAL under 5	5-15	15-25	25-65	Over 65	Corrected Death Rate per 1,000
1890	2,217	373	209	582	95	102	534	904	15·1
1891	2,522	444	232	676	100	120	577	1,049	17·1
1892	2,431	399	237	636	96	95	707	897	16·4
1893	2,087	370	174	544	125	94	598	726	14·0
1894	2,095	363	208	571	73	97	587	767	14·1
1895	2,155	407	159	566	84	89	603	813	14·5
1896	1,872	362	182	544	99	82	536	611	12·3
TOTAL	15,379	2,718	1,401	4,119	672	679	4,142	5,767	...
Approx <sup>te</sup> Yearly Mean	2,197	388	200	588	96	97	592	824	14·8

The next table, which gives the number of deaths from the principal classes of disease, shews that as regards the ordinary zymotic complaints it is only in the mortality from whooping cough and from diarrhœa that there was any considerable decrease, while the deaths both from scarlet fever and from diphtheria (with membranous croup) were even a little in excess of the seven years' average.

Influenza was however much less fatal than it has been in any year since 1890—the twenty-seven deaths caused by it being only 42% of the seven years' average; while more than a third of the total decrease in the year's mortality resulted from the reduction in the deaths from pulmonary inflammations, which fell as low as 230, amounting to about 65% only of the average number—353—for the seven years, and was due, in all probability, to the unusual warmth and dryness of the season.

"Corrected" Yearly Deaths from Certain Diseases in the Berkshire Combined Sanitary District, 1890-96 inclusive.

Date	Small Pox	Scarlet Fever	Diphtheria & Memb. Croup	Enteric and Contd. Fever	Measles	Whooping Cough	Diarrhœa	Seven Chief Zymotic Dis.	Influenza	Cancer	Phthisis	Pulmonary Inflammations	Heart Disease	Wasting and Convulsive under 5 years
1890 ...	-	2	33	18	52	21	40	166	26	109	187	336	337	310
1891 ...	-	4	33	9	18	53	29	146	57	101	194	491	258	329
1892 ...	-	18	30	16	22	40	31	157	166	111	148	478	220	305
1893 ...	6	16	46	8	36	23	41	176	37	99	141	283	225	262
1894 ...	-	6	35	4	26	78	23	172	59	124	170	359	233	230
1895 ...	-	6	38	5	22	26	43	140	85	133	135	296	257	312
1896 ...	-	13	41	11	30	29	28	152	27	106	145	230	200	294
TOTAL ..	6	65	256	71	206	270	235	1,109	451	783	1,120	2,473	1,630	2,042
Approx <sup>te</sup> Yearly Mean } I	1	9	37	10	29	39	38	158	64	112	160	353	233	292



Although it will be seen from this Table that the deaths from the principal zymotic diseases were a little under the average of the seven years 1890-96, the notifications of attacks received under the Act in the fifteen districts where it has been adopted were considerably above the average, amounting to 627, having been exceeded in one year only—1893—out of the seven. Of this number 406 were cases of scarlet fever—generally of a mild type—ninety-nine diphtheria and membranous croup, and forty-six enteric and simple continued fever; and they occurred in a population amounting to 125,073 at the census of 1891.—see Table IV. I am unable to give a reliable return of the number of cases in the two non-notifying districts (population 21,609), but the subjoined Table gives some facts of interest as to the relative fatality of the chief notifiable diseases in the “notifying” and “non-notifying” districts respectively.

Notifiable Diseases Mean Annual Death Rate per 10,000 of Population Census 1891	All Notifiable Diseases	Small Pox	Scarlet Fever	Diphtheria and Memb <sup>s</sup> . Croup	Enteric and other Continued Fever
Mean of 7 years, 1891-96 Notifying Districts	3.94	0.05	0.70	1.89	0.58
Mean of 7 years, 1891-96 Non-Notifying Districts	9.85	0.20	0.66	6.09	0.99
Deaths on above in 1896 Notifying Districts	4.72	...	0.96	2.32	0.64
Deaths on above in 1896 Non-Notifying Districts	6.94	...	...	5.09	0.92
Mean Notifications rec <sup>d</sup> . from Notifying Districts, 1891-96, per 10,000 of Population ...	41.44	0.69	22.00	7.27	3.97
Percentage of Deaths to Notifications, 1895	8.56%	...	1.48%	30.36%	7.27%
Do. do. 1896...	9.41%	...	2.95%	29.42%	17.39%
Do. do. mean of seven years, 1891-96	9.51%	6.54%	3.32%	26.10%	14.7%

During the past year the Infectious Diseases "Prevention Act," 1890, has been put into operation in the Borough of Newbury, but until provision is made by the adoption of the Notification Act (both in this, and also in the Maidenhead Urban District) for notice of all attacks of "notifiable" infectious diseases, to be forthwith given to the sanitary officer, I cannot anticipate any such benefit resulting therefrom as might otherwise have been looked for; the difficulty in dealing with infectious outbreaks arising much more from insufficient information as to the actual occurrence of attacks than from want of power to deal with them under the general Act when once reported. This remark applies in some degree even to "notifying" districts, in as much as, while the experience of 1896 has been in accordance with that expressed in my report for the previous year as to the general smoothness with which the "Notification" Act has worked, both as regards medical practitioners notifying cases, and also the several persons and families concerned, success cannot be claimed for that part of the main Act which relates to "dual" or lay notification; heads of families but seldom themselves notify when a medical man has been called in, and when medical advice has not been obtained, it may be said that practically the cases are never notified to the Sanitary Authority, nor are the necessary sanitary precautions observed, unless, it may be, in a few instances at a late period (when they can no longer be of much use), and as the result of enquiries into the origin of other attacks, subsequently notified, which are apparently traceable to them; when it is usual to find that either the very fact of the alleged illness is denied, or else (even in cases where the child may be still "peeling" after

scarlet fever) it is declared to have been of a very trivial character, such as "a cold," or a "sore throat," a "little chill," a "little rash," or, perhaps oftenest of all, "only the measles." It may be at once admitted that a considerable proportion of these cases—whether scarlatinal or diphtheritic—are of a mild character, and among the working classes, especially, they are too generally treated very lightly, but they are often the starting points of much more severe or even fatal attacks, and not infrequently of serious and widespread outbreaks.

As regards measles itself, which is not scheduled as a "notifiable" disease under the Act—though Sanitary Authorities are empowered (Section 7), should they think fit, to add it to the list with the sanction of the Local Government Board, the important question arises as to whether or not it is desirable that this should be done. On the one hand it may be justly urged in favour of its inclusion in the list of notifiable diseases: A. That its non-inclusion at the present time often affords a loophole by which a considerable proportion of the milder attacks of scarlet fever entirely escape notification and sanitary supervision, the patients' friends failing to obtain medical advice, and excusing their neglect by pleading that they thought it was "only measles."

B. That it is a disease which is spread to a very large extent by the association of children coming from infected houses with the other children who are attending the elementary and Sunday schools.

C. That it is a disease, the prevalence and fatality of which might be greatly lessened if information of initial cases could be obtained at the commencement of the attacks.

D. That at the present time the mortality caused by it, and by whooping cough (which in respect of "notification" stands in the same category) largely exceeds that resulting from small pox, scarlet fever, diphtheria and the continued fevers, all combined. The returns for the whole Combined Sanitary District for the seven years, 1890-96, shew that measles is accountable for 206 deaths, and whooping cough for 270 (total 476), against a mortality from small pox of 6, scarlet fever 65, diphtheria, &c., 255, and continued fevers 69—total 395. On the other hand, there are serious practical difficulties in the way of obtaining notification of measles in such a way as will render any effective sanitary action possible: 1st. Because it is highly infectious in its earliest stage, *i.e.*, previous to the appearance of the eruption, and at a time when the nature of the attack is not definitely recognisable. 2nd. That it spreads among susceptible children with such rapidity that it would be impracticable to provide sufficient isolation hospital accommodation for the number of cases that would crop up in a very short space of time; that a large proportion of the attacks occur among children who are too young for such removal to a hospital, and that the disease (like whooping cough) is most fatal at that age (under two years); while without the provision from time to time of a staff of "visiting" nurses, when an epidemic period occurred, it would not be possible to supervise effectively the cases which would have to remain in their own homes for treatment, or to ascertain the existence of those which would still remain un-notified. The additional expense that would have to be incurred for the notification fees alone, is also a consideration which cannot be entirely overlooked without a

good prospect of the attainment of a beneficial result. At the present time such information as is received with reference to measles outbreaks is obtained from the weekly or fortnightly returns of pauper sickness, of which copies are sent to the Medical Officer of Health, as are "special" returns of all deaths from infectious diseases received from the District Registrars, and also (but in this case usually not until the cases have become so numerous as to seriously diminish the school attendance, thus affecting the "average") from the managers of elementary schools. The action taken—is to caution the masters and mistresses of the schools not to suffer any child coming from an infected house to continue to attend school till the house is free from infection (four weeks from the beginning of the latest attack in it), or else to temporarily close the "infants" division, and in some cases the whole school, and to have the school rooms cleansed and disinfected before they are reopened, while the importance of such isolation as is possible in cottages is impressed on the parents of the children who are known to have been attacked. From the very careful and complete report on this subject, presented to the Local Government Board by Dr. Theodore Thomson, one of their Medical Inspectors, it would appear that not much more than this is found practicable even in the majority of those sanitary districts where the complaint is notified. But short of including measles in the list of notifiable diseases, it might, I think, be often practicable to obtain early notice of the commencement of outbreaks through the school attendance officers, if arrangements were made by which the information obtained by them in the course of their enquiries into the causes of children's absence from school



could be systematically communicated to the officers of the Sanitary Authority, as well as to the school managers, whenever illness was alleged as the cause of such absence.

Isolation Hospital Accommodation. — Although no great progress can be reported in the actual provision of such hospital accommodation during the past year, the Culham Rural Authority has obtained the use of a pair of isolated cottages at Clifton Hampden for the purpose, and the arrangements for furnishing them have been settled. The Newbury Rural Authority has entered into more definite arrangements with the Urban Authority than had previously existed for the use of the hospital at Wash Common as occasion may require. The Wallingford Rural Authority has made an application to the County Council with reference to the provision of a hospital in accordance with the Act of 1893. The Bradfield Rural Authority appointed a special committee to consider and report on the general question, who came to the conclusion "that it is desirable, by way of experiment, to provide 'isolation accommodation' on a small scale on the lines suggested by Dr. Thorne Thorne in the Local Government Board Memorandum of 1895, and also to obtain a suitable site for an 'emergency' hospital;" and a letter from the County Council relating to the provision of Isolation Hospitals on a definite plan, and so as to provide for the requirements of all the Authorities, has been addressed to the various District Councils and considered by them.

The details of the sanitary work done in individual sanitary districts will be found in the reports to the several District Councils.

## NEWBURY RURAL SANITARY DISTRICT.

AREA 42,866 acres. Number of inhabited houses (census 1891) 2,456, occupied by 10,675 persons (Males 5,181, Females 5,494) of whom the relatively large proportion of 83 per 1,000 are above sixty-five years of age. The "corrected" population is estimated as amounting to 10,302 at the middle of 1896.

During the year 1,470 premises were inspected and nuisances found on 176. Of these 160 were abated before its close.

At Colthrop Mills, Thatcham, a house to house inspection of the cottages was made by the sanitary inspector and by me—several of them were found to be in a foul and insanitary condition, two being overcrowded also. They have since been repaired, cleansed, and the overcrowding abated. At the Mills the closet accommodation was very insufficient, and five additional closets have been provided. Analyses were made of the two well waters which furnished the supply for the cottages, and both of them proving to be so polluted as to be quite unfit for drinking, notice was given to the owner to provide a fresh supply. This matter is however still in hand.

At Enborne Row a house to house inspection was made of the older cottages, one of them was closed and the rest improved and repaired.

At Stockcross, to the unsatisfactory condition of which as regards its drainage attention was called in the report for last year, the school closets have been improved; but the state of the village is otherwise much as it then was, for which a sewerage system, which need not be of an elaborate and costly character, would in my judgment be the most satisfactory remedy.

At Donnington the Committee appointed to consider the question of the proposed sewerage of the village have reported to the Council, and a further re-inspection was made by the inspector and by me. My report was considered by the Council, and ultimately Mr. Anstie, by whom the new sewerage

of Newbury was planned, was called in, with a view to the sewerage being taken into the borough system, but no definite settlement has as yet been arrived at.

During the prolonged dry weather of last summer the well water supply ran short in several localities. This was especially the case at Wickham. In last year's report I pointed out that a reliable water supply for this village could be easily and inexpensively obtained from the adjoining high ground, which is full of springs, and although the work had not been carried out by the end of the year, it is being taken in hand by the owner.

Thirteen samples of drinking water have been submitted to analysis—three being from Wickham, viz., two from existing supplies, both polluted, and one from a spring on the high ground, which was of much better character. Two, as already mentioned, were from the wells at Colthrop Mills, both being very foul. Two were taken from wells at Thatcham, where fatal attacks of enteric fever had occurred, and these also proved to be polluted. The others were from different localities in the district. Of the whole number only two samples were entirely satisfactory, three were passable waters, and the rest distinctly fouled—six being highly impure. These wells have been cleansed, or new supplies have been provided or are in hand. One of the samples was from a well sunk for the supply of a new building at Woolhampton; it proved to be very impure and quite unfit for drinking. Another well was therefore dug, and, as I am informed, good water has been found at a depth of about seventy feet. If this should be confirmed, and a sufficient supply for the requirements of the village and of reliable quality can be got at this depth, it would be most desirable to take the necessary steps to provide a public water supply for the place, as it is greatly needed.

Mr. Walter Church, sanitary inspector, reports that of the 160 nuisances abated during the year all but three were remedied without formal notices being required, and legal



proceedings were necessary in only one case. Of the entire number sixty-two related to foul closets and drains, twenty-six to animals badly kept, eighteen to dirty or dilapidated houses, and fifteen premises were provided with earth closets.

Twenty-two cowsheds and dairies were inspected, and eight registered; nuisances being abated or sanitary conditions improved on four. Twelve slaughterhouses, nine bakehouses, and fifteen piggeries were visited, six nuisances being dealt with in relation thereto.

Twenty-six notifications of infectious disease were received under the Act, as against thirty-three and thirty-one in the two preceding years, viz.: scarlet fever, five; diphtheria, two; enteric fever, eight; erysipelas, eleven.

Scarlet Fever.—Four of the attacks occurred in Thatcham at considerable intervals from May to October; one was an imported case, and the others were apparently unconnected with each other; the source of infection could not be traced in either, or in the fifth which was notified early in the year at Enborne.

Diphtheria.—This disease has scarcely made its appearance in the district throughout the year, notifications of only two cases having been received. These occurred in a family living on the outskirts of Newbury, but in the rural district. The house was in a low-lying damp locality, but otherwise in fair sanitary condition. No history of known exposure to infection could be obtained. One attack was fatal.

Enteric Fever.—Eight sporadic cases were notified in the twelvemonth, being one less than in 1895, and two of them ended in death. With one exception there was only a single attack in a family, and all but one occurred between July and November. The first was notified in January at Marsh Beenham, a rather low-lying locality, the sanitary surroundings of the cottage were somewhat unsatisfactory, and a house to house inspection of the village was made by me in conjunction with the inspector. No other case was notified till July, when a child living at Donnington, where it had had diarrhoeal symptoms

and worms for some little time, was removed to Cold Ash and there developed typhoid. In August there was a case in an insanitary house at Midgham, and in September and October two attacks, both fatal, were notified in different parts of Thatcham; the sanitary condition of both premises was unsatisfactory, and samples from both wells were found on analysis to be seriously contaminated; both patients were adult males—one being over seventy years of age. There was not any traceable connection between the two, and no other cases followed. In October a lad living on Donnington Hill was attacked after he had been at work where there was an accumulation of offensive pig manure, and three weeks later two cases were notified in an exceedingly foul and insanitary cottage on Speen Hill, which there was some reason to think were connected with the preceding one, though this could not be very definitely made out. In all these cases every precaution was taken to prevent the complaint from spreading, insanitary conditions were remedied, and the wells cleansed and secured against further fouling.

Erysipelas.—Eleven attacks were notified, spread pretty evenly over the year and the district; all ended in recovery.

Of “non-notifiable” zymotic diseases, influenza was the only one that prevailed seriously, causing five deaths in the first quarter of the year.

The registered births were M. 127, F. 127, total 254—a decrease of thirty on those of 1895, but slightly above the mean of the five years 1891-5. The deaths registered within the district were 145—but thirteen have to be added of “rural” inmates of the Union House and patients in the District Hospital, making the corrected number M. 85, F. 73, total 158, or thirty-three below the mean yearly mortality of the same quinquennial period. The birth rate was 24·2 per 1,000 of the estimated population, and the corrected death rate 15·0—being the lowest reached in the district since 1888, although it is nearly three per 1,000 above the mean rate of the combined district for the

year, owing probably to the relatively high proportion of residents above sixty-five years of age—amongst whom 41 % of the total deaths occurred.

The percentage of infantile mortality to births was low, viz., 9.1 %, while the deaths at all ages were 62.2 % of the same—or 13 % in excess of the year's "mean" rate.

The mortality from the principal zymotic diseases was very small—being one death each from diphtheria, measles, and whooping cough, with two from enteric fever and the same from diphtheria—being at the rate of 0.7 per 1,000 and of 4.4 % of those from all causes.

Consumption accounted for nine deaths, with a rate of 0.9 and a percentage of total mortality of 5.7 %, while pulmonary inflammations were fatal to nineteen persons—almost entirely young children or old people, and occurring in the first and fourth quarters of the year; the rate and percentage of deaths from all causes being 1.8 and 12 % respectively.

Of the thirty-nine deaths of infants and children under five years of age, being 24.7 % of those at all ages, only three resulted from zymotic diseases, while twenty-four—or 61.5 % of all occurring at this age period—were due to diseases of nutrition and development. These include seven feeble infants who lived less than four weeks.

Six deaths resulted from various cancerous diseases and thirteen from diseases of the heart and great vessels.

Eight inquests were held, two being on deaths from accidental injuries, two from drowning; in the other four, "natural causes" only were assigned as the cause of death.

## NEWBURY URBAN SANITARY DISTRICT.

AREA 1,829 acres. Number of inhabited houses (census 1891) 2,385, occupied by 11,002 persons (Males 5,096, Females 5,906). As regards the sex and age distribution of the population, there

was at that date a relative excess of females to the extent of 28 per 1,000, as compared with the mean of the combined district, and also of persons at the age periods 5—15 and 15—25.—see Table II.

The work of putting in the house connections to the new sewers has been steadily gone on with during the year in accordance with the regulations laid down and, under the supervision of the Borough Surveyor, about five hundred houses have been thus connected. In carrying out this work in the numerous courts the provision of new and properly constructed closets, with adequate flushing apparatus, has been required in the proportion of not less than one to every three houses wherever the existing conveniences were insufficient in number or insanitary in construction and condition; and in Coles' Buildings, Lisle Place, Ashton, Clare, Gilbert, Balfour, Herborough Courts, and Cock Yard, of which a house to house inspection has been made by me, forty-five cottages have been reported to the Authority under the Housing of the Working Classes Act, as unfit for habitation, and the necessary notices were served to close certain premises and to put the others into a sanitary and habitable condition, failing which proceedings would be taken to have them closed also. Six cottages were thus permanently closed, and the necessary works were begun in Aston, Clare, and Herborough Courts, and in Coles' Buildings before the end of the year.

Seven samples of water have been submitted to analysis in connection with cases of illness occurring where they were in use, or of the insanitary surroundings of the wells. Only one of them gave satisfactory results on examination.

Mr. E. A. Stickland, borough surveyor and sanitary inspector, in his annual return, reports 624 premises as inspected. Nuisances being found on twenty-two, which were all abated. Water supply was provided for twenty-eight houses. Five cowsheds, four milkshops, thirty-one piggeries, seven slaughterhouses, twelve bakehouses, four common lodginghouses, and



eight workshops have been inspected, as also sixteen canal boats; nuisances being found and abated on two of the piggeries and one cowshed and dairy. Proceedings before the Justices were taken in two cases, one being for the exposure of a large quantity of bacon for sale in the market place in a state unfit for human food. It had been seized by the inspector after it had been examined and condemned by me, and a magistrate's order was obtained for its destruction forthwith. At the subsequent proceedings for the exposure of the meat, a conviction was obtained and a fine of five pounds and costs was inflicted on the defendant.

During the year the Infectious Diseases Prevention Act has been adopted by the Authority, but as the Notification Act is still NOT in operation in the district, no machinery exists by which the occurrence of an attack of notifiable disease is necessarily reported to the sanitary officers; and the only cases that have come to my knowledge have been two attacks of small pox, two fatal cases of diphtheria, and two of enteric fever—one of which ended in the patient's death. As regards the small pox attacks, one was that of a man received into the tramp ward of the Union House at the beginning of March, who stated that on his way to Newbury, he had passed through Abergavenny where the disease was present at the time. The second occurred about three weeks later, the patient being a woman staying at a common lodginghouse in the town. No history of known exposure to infection could be obtained in her case. Both these persons were removed to the Isolation Hospital on Wash Common immediately the nature of the illness was recognized—the other inmates of the common lodginghouse were persuaded to remain in quarantine for a fortnight, and most of them consented to be revaccinated. At the Union House also every desirable precaution was adopted, and no other attacks occurred.

The two cases of diphtheria, both fatal and occurring in children under five years of age, were apparently sporadic—no

history of infection was obtainable, but as regards one of them it was alleged that there was at times an escape of offensive effluvia from a sewer ventilator which had been placed near the house, and on the opposite side of the road there was an ill-kept and insanitary cowshed, which was closed in accordance with my report.

Of the two attacks of enteric fever that came to my knowledge one proved fatal, it occurred in one of the courts, the sanitary condition of which was very faulty, mainly in consequence of the way in which the cottages were shut in at the back and of the insufficiency and defective character of the closet accommodation. The two old closets were abolished and a range of new ones constructed which were connected with the new sewerage. In the other case no history was obtainable, but the sanitary conditions of the place were unsatisfactory.

The births registered in the year were M. 151, F. 128, total 279, and the total deaths 146, from which ten of those in the Union House and three in the District Hospital have to be deducted as belonging to the rural district, while two in the County Asylum and one in Reading Hospital have to be added, these persons having been received from the Borough. The corrected number is therefore M. 74, F. 62, total 136—a decrease of thirty-eight as compared not only with 1895 but in nearly the same proportion as regards almost every year since 1874. The birth rate per 1,000 of the estimated population was therefore 24.1 and the corrected death rate only 11.7—being by much the lowest yet reached in the district, and 3.5 under that of 1895, amounting indeed to less than half (48.7) of the births. The proportion of infantile mortality (under one year) was high, being 14.3 % of the births and over 29 % of the deaths at all ages, but of the forty infants dying at this age period nearly half (eighteen) had so little vitality when born that they lived less than a month.

The mortality from the chief zymotic diseases (seven) included the three deaths already mentioned, with four from diarrhœa,

of which last three were of infants—being 5·1 % of those from all causes and at the low rate of 0·6 per 1,000. No deaths were recorded from influenza.

Consumption accounted for eight deaths, and various cancerous diseases for ten.

Pulmonary Inflammations were fatal to seventeen persons, eight being children under five years old—being 12·5 % of the total deaths and at the rate of 1·5 per 1,000.

Thirty children under five died from developmental wasting diseases—being 71·7 % of all the deaths at this age period and at the rate of 2·9 per 1,000.

Four inquests were held, three being on accidental deaths and one from “natural causes.”

#### HUNGERFORD RURAL SANITARY DISTRICT.

APPROXIMATE area 47,000 acres. Enumerated population at census of 1891, 9,629 (Males 4,841, Females 4,788) occupying 2,100 houses. These figures have been extracted, or calculated, from the census returns as correctly as circumstances admit of, but the changes in the County and Parish boundaries, consequent on the coming into operation of the Local Government Act of 1894, put great difficulties in the way of real accuracy. Allowing for an annual decrease of population at the same rate as in the ten years 1881-91, the estimated “corrected” number is 9,554 at the middle of 1896.

As regards the proposed sewerage of the town of Hungerford, no definite decision has been arrived at as yet by the District Council, although the matter has been considered by them. I made a fresh inspection of the localities adjacent to the Kennet, in consequence of further communications to the Council on the subject received from the Thames Conservancy, and I found that there was a decided improvement as regards any direct discharge of sewage into the stream, but there can

be no doubt that in the end it does find its way there to some extent, while the fact must not be overlooked that the care which is now taken to prevent slop waters from being thrown into the street channels involves its retention on the premises, and therefore frequent risk of serious fouling of the well water. Reports have been made to the Council as to absence of drainage and general insanitary conditions of certain premises in Church Street and Charnham Street, and four houses have been closed as unfit for habitation.

Mr. Pinniger, sanitary inspector, reports 1,172 premises as visited by him during the year, nuisances being discovered on 147 of them, which were remedied (after formal notices in sixty-three cases) as regards 126 before its close. Three houses were reported as unfit for habitation under the Housing of the Working Classes Act and four were closed.

The cowsheds, twenty-five; bakehouses, twenty-three; and slaughterhouses, eight, were also inspected; nuisances being found to exist in only two cases, both of which were abated.

The whole of the Lambourne stream has also been entirely cleansed in its course through the district.

Forty-seven notifications of infectious cases were received, of which thirty-seven related to scarlet fever, with one of enteric fever and nine of erysipelas. No other notifiable disease being reported throughout the year.

Scarlet Fever.—In the report for 1895 it was stated that a rather extensive, though a mild, outbreak of this complaint occurred in Hungerford, Inkpen, and Kintbury parishes during the fourth quarter of the year, forty-eight attacks being notified. All that was practicable was done to check its progress, both by isolation and the temporary closing of the elementary schools, but it was doubtless kept up in consequence of its very mildness, many cases not receiving any medical assistance or coming to the knowledge of the sanitary officers early enough for sanitary precautions to be of much service. It consequently continued into 1895, sixteen notifications being received in



January (affecting eleven families), seven in February, while in each month up to June three or four more were reported. By the middle of the year the outbreak was entirely at an end, only a single death having resulted from it in a total of eighty-five attacks, nor did it spread beyond the three parishes first affected. During the eight months that it lasted, thirty-one families suffered in Hungerford, eleven in Inkpen, and twelve in Kintbury.

Enteric Fever.—A single mild attack of this complaint was notified in a house in poor sanitary condition at Downgate, no other history was obtainable. One death from the disease is included in the “corrected” mortality return—Table VI.—but it refers to an inmate of a public institution in another part of the country who had been received from this district.

The nine notified cases of erysipelas—all adults—occurred in the same three parishes as were concerned in the scarlatinal outbreak. All were non-fatal and they had no feature of interest though the sanitation of the premises was examined in every instance.

The births registered during the year were M. 123, F. 124, total 247, and the deaths 109. Adding to these, three deaths at the County Lunatic Asylum and two in Reading Hospital of persons belonging to the district, and deducting four deaths in the Union House of persons belonging to Ramsbury district, the corrected number is M. 49, F. 61, total 110; the births being at the rate of 25·3 and the corrected deaths 11·3 per 1,000 of the estimated population at the middle of the year. The corrected mortality was therefore considerably less than half (44·6%) and the deaths under the age of one year amounting to only 7·3% of the births and to 15·4% of the deaths at all ages, the birth rate being somewhat in excess and the death rate appreciably below the corresponding mean rates for the year of the combined district.

The “zymotic” deaths were limited to the fatal attack of scarlet fever already mentioned and two from diarrhoea actually

occurring within the district, with one from typhoid fever and one from whooping cough occurring outside it, being at the low rate of 0·5 per 1,000 or 4·5 % of those from all causes. In addition, two deaths were recorded from influenza.

Six deaths resulted from consumption, and seven from various forms of pulmonary inflammations, the rates being respectively 0·6 and 0·7, while cancerous diseases were fatal to five persons.

Half of the eighteen infantile deaths occurred within four weeks of birth, and of the total of twenty-seven under five years of age, amounting to 24·5 % of the entire mortality, nineteen—or 70·4 % of all occurring at this age period,—and equal to a rate of 2·5 per 1,000, were due to developmental diseases and 7·4 % to zymotic complaints.

Eight inquests were held, four were on deaths from undetermined “natural causes,” one from apoplexy, and the remainder from accidental drowning and gunshot wounds.

### RAMSBURY RURAL SANITARY DISTRICT.

APPROXIMATE area 50,000 acres, containing about 1,800 houses and a population at the census of 1891 estimated at 7,388 (Males 3,715, Females 3,673). As in the case of Hungerford district, these figures can only be taken as approximately correct on account of the alterations in the boundaries of the respective sanitary areas since the census was taken. Calculated according to the annual rate of decrease in the population between 1881-91, the “corrected” number would be 6,970 at the middle of 1896.

The question of the pollution of the river Kennet and its affluents by slop or other sewage has had much attention, and it is believed that very little, if anything, of the kind now finds its way into it, great care and watchfulness being exercised by the inspector to prevent not only any direct drainage thereto, but also to stop the fouling of the road water which reaches it

by the hitherto only too common practice, in some localities, of throwing dirty slop water and suds into the street channels.

Nine houses have been reported to the Authority under the Housing of the Working Classes Act as unfit for habitation, and as regards the cottages at Ramsbury which late in 1895 were so represented, five have been closed and the remainder improved.

Mr. Pinniger, the sanitary inspector, reports 1,011 premises as inspected during the year, nuisances being found on 145, as to which formal notices were required in forty-three instances, and 117 were abated by the end of December. The majority related to foul closets (fourteen) and drains (seventeen) or to dilapidated and dirty houses (thirty). Forty-six dairy farms and cowsheds were visited and one was added to the register. Thirty-three bakehouses and seven slaughterhouses were inspected, only two cases of nuisances being found, which were remedied.

Three new houses have been built in the year, and certificates granted as to water supply.

Forty-seven notifications of infectious attacks were received under the Act, viz.: scarlet fever, twenty-eight; diphtheria, nine; enteric fever, one; continued fever, one; erysipelas, eight. All were enquired into and watched, all practicable precautions being taken, and none of the cases proved fatal.

Scarlet Fever.—All the notified attacks of this complaint were of a very mild type, and nearly three-fourths of the total number occurred in four families living in Chilton and Great Bedwyn. In one instance eight cases were notified in a single family on the same day, but infection did not spread beyond the one house invaded. The source of infection could not be traced as regards any of them, though it is probable that the first Chilton cases may have been an extension of the Hungerford outbreak which was coincident with it, occurring as it did early in the year, the slight subsequent extension resulting from

intercourse at school; while the Bedwyn attacks, which occurred in the fourth quarter, could not be accounted for in any way.

Diphtheria.—The nine notifications received referred to cases occurring in two families only, viz.: three in a farm house at Froxfield, the sanitation of which was in some respects defective, these occurring in May, and the other six in December at a farm cottage in Axford, the surroundings of which were insanitary and the locality very damp. The children were also said to be subject to throat troubles. No exposure to infection could be traced in either instance.

The solitary attack of enteric fever was an imported one, the patient coming home ill from Swindon; and no remark seems called for with reference to the single mild case of continued fever, or the nine of erysipelas, which were spread over the year and in different localities in the district.

The births registered were M. 111, F. 81, total 192, the deaths amounting to 78, to which four of those in the Hungerford Union House have to be added, making the corrected number M. 37, F. 45, total 82, being but 42·7% of the births, to which the proportion of infantile mortality (fourteen deaths under one year) was only 7·3%.

The birth rate was 27 per 1,000 of the estimated population, and considerably above the year's mean rate for the combined district, while the death rate 11·5 was somewhat less than the corresponding "mean," and 45 % of the entire mortality occurred amongst persons above sixty-five years of age.

The only deaths from the principal zymotic diseases were two from diarrhoea, being at the rate of 0·3 per 1,000, and the same number resulted from influenza.

Four deaths only were accounted for by consumption, but pulmonary inflammations were fatal to five young children (under five) and to thirteen aged persons (or eighteen in all), being 21 % of the deaths from all causes, and at the rate of 2·5 per 1,000.



Of the nineteen deaths under five years of age, ten, or 52·6%, of the whole were due to developmental diseases.

Four inquests were held, two being on infantile deaths from accidental scalds, one on a case of suicide, and the other on a sudden death from "natural causes."

### ABINGDON RURAL SANITARY DISTRICT.

AREA 40,869 acres, containing approximately 2,000 houses, and an enumerated population of 9,279 at the census of 1891—which is estimated to the middle of 1895 at 9,270, after correction for the proportion of inmates of the Union House belonging to the district and a small annual decrease at the same rate as obtained in the ten years 1881-91.

The sanitary work of the year has been mainly of a routine character, with the exception of the important question of the provision of an isolation hospital for infectious cases which has come to the front and will be again referred to.

The sanitary inspector, Mr. T. B. Warren, in his annual return of work done in the district, reports 388 premises as inspected, nuisances being found to exist on ninety-two, for which seventy-nine formal notices of abatement were issued. Those on seventy-one premises were abated before the close of the year, relating chiefly to foul closets (twenty-seven) and drains (thirty-three), or to dilapidated houses (thirty-four) and impure or deficient water supply (twenty-one).

Five dairy farms, five slaughterhouses, and eighteen bake-houses were inspected, and insanitary conditions remedied on eight of them.

Four houses were reported under the Housing of the Working Classes Act, one of them being ultimately closed by order of the Justices in consequence of the owner's failure to comply with the notice served on him to put it into habitable condition. Ten canal boats were also inspected.—see Table IX.

Eight water samples have been submitted to analysis, and all but one with unsatisfactory results. Four of them were taken from various premises at Milton, in consequence of complaints as to the impurity of the well waters, and having subsequently made an inspection of the village and of the places from which the samples—all of which proved to be bad—had been taken, I have advised the Council as to the necessity for a further examination of the village wells, with a view to the provision of a public supply should it appear to be required.

In accordance with the request of the Medical Inspector of the Burial Acts' Department of the Home Office I have examined the proposed site for a new Burial Ground at Marcham, and have reported it as suitable for the purpose.

The question of the discharge of slop drainage and farm-yard drainage into the ditches and watercourses at Steventon has been enquired into, and the results of my inspection reported to the Council.

Forty-one notifications of attacks of infectious complaints were received under the Act, viz.: scarlet fever, thirty-four; diphtheria, three; enteric fever, three; erysipelas, one.

Scarlet Fever.—At the end of March two attacks of this complaint occurred in an old decayed cottage in which proper isolation was almost impracticable, and a few weeks afterwards there were three more in an adjoining house. A month later it broke out in Sutton Courtney where, although the National Schools were temporarily closed, cases continued to crop up till late in October, fourteen attacks being notified in eight families; from there it spread to Drayton (Berks) where there were ten cases in three families, one of these was fatal—being that of a girl of fourteen who was in a situation at a place some miles from Drayton where there was not and had not been any case of the complaint. but who came home for the day on September 27th to her mother's cottage in Drayton where an infant sister was in bed with a mild attack of it. She is stated to have been in the sick room only for an hour, and she

returned to her situation on the following day, but being taken ill while on her way there was at once sent back to Drayton by her employers, where she rapidly developed a malignant form of the disease and died two days later. The case is of interest as emphasizing the necessity that there is for care in maintaining strict isolation, even in the mildest cases, and of the danger to life that may result from its neglect. In two instances the Council decided to take proceedings before the Justices against the parents for wilful neglect of the cautions given to them in this respect—the children going into the street while still peeling—but it was held by the Bench that there was not sufficient evidence to warrant convictions, and in the end the parties were dismissed with simply a caution for the future. It must be admitted that in the majority of these cases the cottage accommodation was so limited and the families so large that due isolation was exceedingly difficult.

In one instance two children were brought by their mother, with the scarlatinal rash out on them, from Sutton where they were living in an old tent (having been turned out of their cottage for nonpayment of rent) to the Surgery of the District Medical Officer at Abingdon, who, fortunately, though not without difficulty, was able (as they were practically paupers) to obtain their prompt admission into the Infectious Ward of the Union House which was at the time unoccupied.

I therefore reported to the Council as to the necessity that there was in my opinion for the provision of an Isolation Hospital to which the initial cases of an outbreak might be removed, pointing out that could this be done not only would the general spread of infection in the district be checked, but that very often, if promptly dealt with, the mischief would probably be stopped at the very first case. I also suggested the desirability of combination for this purpose among adjacent Authorities on the score both of economy and efficiency.

A Committee of the Council was appointed to consider and report on the matter, and I reported to them more fully as to

the nature, extent, and most suitable locality for such a hospital if joint action could be agreed on, and it was decided to ask the Urban Council and that of the Culham Rural District to join with them in order to carry out this very desirable work. A copy of my report being sent to each of these Authorities.

Diphtheria.—Three cases only of this disease were notified during the year, one being that of a servant who was sickening for the attack when she came from Chipping Norton. In the other two the premises were in a more or less insanitary condition as regards drainage, one being a dairy farm. These were set right and there was not any spread, but no history of known exposure to infection could be made out as regards either of the attacks.

Enteric Fever.—This complaint also was only thrice notified, the first case being that of a discharged soldier who had evidently contracted the disease somewhere on his way home to his mother's cottage as he fell ill almost on his arrival at the house. The second was at a large residence where the drains and out-door closets were very insanitary, and in the third the surroundings of the cottage were also found to be very foul. These were remedied, and the usual precautions being taken there were not any further attacks.

During the third and fourth quarter of the year measles and whooping cough prevailed extensively in many parts of the district, and it was found necessary to close the schools at Cumnor, Drayton, Milton, Sunningwell, Sutton Courtney, and Wytham, on account of the outbreaks.

The births registered during the year were M. 117, F. 118, total 235, and the deaths amounted to 107—to which ten have to be added of persons belonging to the district who died in the Union House (nine) and the County Asylum (one), making the corrected number M. 59, F. 58, total 117, being 49·8 % of the births and at the rate of 12·4 per 1,000 of the population—the birth rate being 24·9, and the proportion of infantile deaths (under one year) to births 9·8 %. All these are nearly identical



with the corresponding "mean rates" for the year of the Combined Sanitary District.

With the exception of the one death already referred to from malignant scarlet fever, the entire zymotic mortality for the year resulted from measles, seven; whooping cough, five; and diarrhœa, two—all being children—amounting to 12·4% of the deaths from all causes and at the rate of 1·6 per 1,000.

Consumption was fatal to twelve persons, or a little over 10% of the entire mortality and at the rate of 1·3 per 1,000.

There were fourteen deaths from pulmonary inflammations, seven being of children under five years of age; the percentage of deaths from all causes and the rate per 1,000 being 11·1% and 1·5 respectively.

The wasting and convulsive diseases of children under five accounted for nine deaths under the age of four weeks and for seventeen deaths—or for 43·6% of all occurring at this age period, as the above-named zymotic complaints do for 30·8%.

Only five deaths were certified as resulting from cancerous diseases, and there were not any from influenza.

Seven inquests were held, three being on deaths from accidents, one from suicide by drowning, the remainder from natural causes.

## CULHAM RURAL SANITARY DISTRICT.

AREA 13,689 acres, containing about 830 inhabited houses and an enumerated population of 2,692 at the census of 1891. The "corrected" number, as calculated to the middle of 1896, is 2,638.

The matter of the discharge of slop sewage into the Thame stream from the villages on its banks has again been taken up, and further inspections of the localities having been made, all such fouling has been stopped as far as practicable.

Mr. T. C. Tompkins, having been appointed at Lady-day as sanitary inspector with the sanction of the Local Government Board, reports 117 premises as inspected to the close of the year. Nuisances were discovered on thirty-five and abated on thirty-two of them—all being of the ordinary routine kind.

Four dairy farms were put on the register and six were inspected, together with twenty-two piggeries, two slaughter-houses, six bakehouses, and five canal boats; nuisances noted on five of the number being abated.—see Table IX.

Early in the year the Authority again considered the question of the provision of some kind of Isolation Hospital for the district, and an opportunity occurring of obtaining the use of a couple of substantial cottages situate in a suitably secluded but conveniently accessible part of Clifton Hampden parish, I inspected them by instruction of the Council and reported that, with certain alterations, they might be made available to a limited extent. They were subsequently taken for this purpose and the arrangements for furnishing and equipment were made, but happily the occasion for making use of them has not as yet arisen. I cannot but feel however that they will be but of very limited service when we have to deal with more than one infectious disease or with more than two or three cases of the same complaint at one time. I therefore laid before the Council my opinion as to the desirability of their combining with the other Sanitary Authorities in the Union in providing a sufficient and properly equipped Hospital for the joint use of the entire Union.

Nineteen notifications of infectious sickness were received during the year, viz.: scarlet fever, seven; diphtheria, eleven; enteric fever, one.

Scarlet Fever.—Five out of the seven notified attacks occurred at a dairy farm in Drayton; the source of infection was not discovered, but the cattle and dairy work being immediately removed to other premises some distance away, and the most careful precautions carried out, the trouble was

confined to the one house. In the late summer two cases occurred in a cottage at Sandford, the premises were unsatisfactory as regards their sanitary condition, though no positive nuisance was discovered, but the mischief was limited to the initial attacks.

Diphtheria.—At the end of February two cases of this complaint (both fatal) were notified in one of a pair of isolated cottages, built on high ground and standing in a field at Primrose Hill, Drayton. The infection had probably been taken at Newington School, which was attended by the children, being close at hand, though their cottage was just within Drayton parish boundary. There was at the time a severe though limited outbreak of the disease in Newington, where a temporary isolation hospital had been established in the school house into which the second child was received,—the attack ultimately proved fatal, but no further cases occurred till April when a group of five mild attacks occurred in three of a row of small cottages at the further side of Drayton village, more than a mile from the Primrose Hill cottage and on the other side of the stream. No direct connection could be traced between these and the previous cases, and strict precautions being maintained there was not any further spread. Between May and the end of August four other attacks were notified in the same number of families, two being in adjoining houses at Toot Baldon, where on examination the drainage arrangements proved to be in a bad state, there being an overflow from a large cesspit (common to both houses and a farm yard) into a field ditch close at hand. This condition of things was effectually remedied and no other cases occurred.

Enteric Fever.—Only one attack was notified during the year, and it occurred in a cottage on the Sandford Sewage Farm, where on analysis of two samples taken at various times the well water was found on both occasions to be largely polluted and unfit for use; the level of the water in the well varying according to the amount of irrigation going on near it

at the time. The well was closed and a new and reliable supply provided.

The births registered during the year were M. 39, F. 33, total 72, the deaths being 34 in number—increased to 40 (M. 21, F. 19) by the addition of three deaths in Abingdon Union House, two in the County Lunatic Asylum, and one in Wallingford Cottage Hospital of persons belonging to the district. The corrected rates per 1,000 of the estimated population being births 26·8, deaths 14·9—the deaths amounting to 52·8 % of the births.

The only deaths from zymotic diseases were the two already referred to from diphtheria, with one from whooping cough. The remaining vital statistics will be found in Tables V. to VIII. inclusive.

#### ABINGDON URBAN SANITARY DISTRICT.

AREA 750 acres, containing 1,387 inhabited houses and an enumerated population of 6,557 (M. 3,044, F. 3,513) at the census of 1891—which, corrected for the Union House inmates belonging to the other districts of the Union and for the same small annual decrease as in the previous decennium, gives the “corrected” number as 6,363 at the middle of 1896.

The question of the general sanitary condition, the closet arrangements and water supply of the courts in the town has been again under the consideration of the Council, and having made re-inspections of the whole of them I was able to report a distinct improvement in almost all respects since the date of my previous report, and especially in respect of the provision of proper apparatus and water for flushing the closets—although I found in several courts that after this had been provided the apparatus had been broken or rendered unworkable by accident or careless misuse on the part of the tenants, or the water supply had in some cases been cut off by the owners to avoid



the water rate; while as regards many of the courts the number of closets provided were insufficient for the proper accommodation of the families using them, this also adding much to the difficulty of fixing individual responsibility on the right persons in case of neglect or malicious injury. I therefore advised that, in addition to an increase in the number of closets, arrangements should be made for systematic weekly or fortnightly inspection of the courts in relation to this matter in order that any default or damage might be promptly put right. I further called attention to the unreliable nature of much of the water supply in the courts where it is obtained from pump wells; and as the Council have taken the necessary steps to largely increase the supply obtainable for the town's use from the borings at Wooton, and have carried out extensive works and gone to considerable expense for this purpose, a loan of £3,250 having been applied for and a Local Government enquiry held by Col. Luard in reference to it, I trust that the time will soon arrive when it may be found practicable to generally replace the pump wells throughout the town, but especially in the courts (at any rate for drinking purposes), by services laid on from the "mains." I further drew attention to the unsatisfactory and insanitary character of much of the paving of the courts, which is for the most part of rough ill-laid stones or cobbles, retaining refuse and dust between them, which in hot or damp weather gives off offensive and injurious emanations, and I advised that as far as was practicable the courts should be paved with hard, impervious, and well-laid materials.

The question of the provision of Isolation Hospital accommodation for infectious cases has also come up for consideration by the Council, and I have reported to them on the subject in the same sense as to the other Sanitary Authorities in the Union, and as already stated in my reports on the two rural districts.

Mr. G. Winship, borough surveyor and sanitary inspector, in his annual return for 1896, reports 235 premises as having been

inspected by him. Nuisances were found on thirty-eight, all of which were remedied—see Table IX.—nearly all related to swine. The slaughterhouses (five) and bakehouses (fourteen) were inspected and found to be well kept and in satisfactory condition. Thirteen canal boats and one common lodging-house were also visited, and a dilapidated cottage in one of the courts was pulled down in accordance with my report.

Fourteen notifications of infectious sickness were received, viz.: scarlet fever, three; diphtheria, two; enteric fever, five; erysipelas, four; and among the non-notifiable diseases, measles prevailed extensively in the autumn necessitating a large amount of exclusions of infected children from the schools.

Scarlet Fever.—Two of the three notified attacks of this complaint were cases received into the Union House from Sutton Courtney under the circumstances mentioned in the report on the rural district; the third being that of a child as to whom no history of infection was obtainable and who was in the “peeling” stage when the case was notified.

Diphtheria.—One of the two attacks occurred in January at a small house in the Vineyard and was carefully investigated, but no sufficient clue was found to clear up its origin, although the drinking water proved on analysis to be of very low quality. The second case proved fatal almost as soon as it was notified, and here also no satisfactory explanation of the cause of the illness could be obtained.

Enteric Fever.—Five attacks were notified, resulting in two deaths. In one of the fatal cases the complaint had been contracted away from home and at a seaside resort. In the other, which occurred in one of the courts, the drinking water proved on analysis to be of suspicious character. As regards the three non-fatal attacks, which occurred in March and July in different localities and were apparently quite unconnected with each other, the drainage arrangements were found to be

defective and in one case there was reason to suspect the well water; no "specific" infection could be made out as regards either of them.

The births registered during the year were M. 85, F. 80, total 165, and the deaths 102—a number reduced to M. 48, F. 46, total 94, when the necessary corrections are made by the exclusion of twelve deaths in the Union House of persons not belonging to the district and the addition of one in the County Asylum of a previous resident in it. The birth rate was 25·4 per 1,000 of the estimated population and the death rate 14·0, which is the lowest reached since the Public Health Act, 1875, came into force, and in the proportion of 55·1 % of the births. The infantile deaths (under one year) amounted however to 12·7 % of the births—being, as in previous years and in most of the other urban districts, considerably above the corresponding ratios for the "rural" districts.

Of the fifteen deaths from the principal zymotic diseases, twelve were equally divided between measles and diarrhœa (ten being children under five years old), the others have already been mentioned, viz.: diphtheria, one; enteric fever, two. They account for 16·5 % of the entire mortality and were at the rate of 2·3 per 1,000 of the population, causing also 32·3 % of all the deaths under five years.

Consumption was fatal to six persons, with a rate of 0·9 per 1,000 and a ratio to deaths from all causes of 6·6 %.

Pulmonary inflammations account for ten deaths, or 11 % of the whole, the rate per 1,000 being 1·5.

The wasting and convulsive diseases of young children (under five years) resulted in fourteen deaths, being 15·4 % of those at all ages, or 41·2 % of those at this age period and at the rate of 2·2 per 1,000 of the population.

Eight inquests were held, of which five were on deaths from various "natural causes" and three from accident.

## WALLINGFORD RURAL SANITARY DISTRICT.

AREA 23,759 acres, containing about 1,270 houses, and an enumerated population at the census of 1891 of 6,567 (Males 3,300, Females 3,267), estimated after exclusion of the special inmates of the County Lunatic Asylum and allowance for a diminution corresponding to that of the ten years 1881-91, as amounting to 6,234 at the middle of 1896.

At the beginning of the year an enquiry was held at Didcot by General H. D. Crozier, R.E., one of the Inspectors of the Local Government Board, with reference to a proposal to borrow £6,700 for the carrying out of Mr. Baldwin Latham's scheme for the sewerage of North Hagbourne, and the matter has since had much consideration from the District Council, but no final decision has as yet been come to on the subject. I have on various occasions during the past year inspected the greater part of this village with reference to the general sanitary condition of the cottages, in which considerable improvement has been effected in various respects, which cannot however make up for the want of the two great sanitary requirements of the place, viz.: efficient sewerage and a reliable water supply.

I have also made house to house inspections of Little Wittenham and of some parts of Aston Tirrold and Upthorp, of Brightwell (including a row of very insanitary cottages where scarlet fever had occurred) Cholsey, Didcot, Long Wittenham, Moulsoford, North Moreton, &c. Some of these inspections were made at the instance of the Council, to whom detailed reports were presented with reference to the structural condition, drainage, water supply, and density of occupation of the cottages in question, five of which—viz.: Union Terrace, Brightwell, two; Mackney Lane, two; and Long Wittenham, one—were represented to the Council, under the Housing of the Working Classes Act, as being unfit for habitation.

The proposed site of a new Burial Ground for Hagbourne



parish has been inspected and reported on as suitable for the intended purpose to the Burial Acts Department of the Home Office.

Five samples of well waters were submitted to analysis, only one of which proved to be passably good, their low quality being due however to the indifferent character of the natural waters of the places from which they came rather than to sewage fouling, &c.

At the expiration of Mr. S. C. Johns' term of office at Lady-day Mr. R. B. Lay was, with the sanction of the Local Government Board, appointed Sanitary Inspector of the district, and he reports 586 premises as inspected to the end of December, nuisances being found on 360, of which 306 were abated at that date. Of these 158 related to foul closets (mostly cesspit privies), forty-four to bad drains, and twenty-three to foul or decayed houses—four being closed as unfit for occupation. One hundred and thirty-seven pail closets have been arranged for, and 115 are already provided. The dairy farms, &c., (twenty-three), piggeries (twenty), slaughterhouses (four), and bakehouses (five) have been visited and nuisances abated on five of the number. Six canal boats were inspected and two cowsheds placed on the register.—see Table IX.

Sixty-two notifications of infectious sickness were received, viz.: scarlet fever, forty-eight; diphtheria, three; enteric fever, six; puerperal fever, two; erysipelas, three.

Scarlet Fever.—Three-fourths of the cases occurred in the last four months of the year, chiefly in Aston Tirrold, seven; North Hagbourne, eighteen; and North Moreton, eleven—twenty-nine families in all being attacked. In several instances successive cases (three or four) were notified in the same house at intervals of a week or more—owing to the difficulty of maintaining proper isolation of the child who first fell ill from the other members of the family; and after a good deal of consideration by the Council it was felt that the time had arrived when steps should be taken to provide the district with an

Isolation Hospital in accordance with the provisions of the Act of 1893, and an application was made to the County Council for this purpose, which has been taken into favourable consideration by them and I trust may be carried into effect with the least practicable delay. It was not found possible in the great majority of cases to trace the source of infection as regards the initial attacks; but as there could be little question but that the spread from family to family in a given place resulted from the association of the children at school, the Council resolved to ask school managers habitually to use disinfectants in the ordinary cleansing of the school rooms and closets, in the hope of thereby, in some degree, lessening the risk from this cause—a risk not resulting from any laxity in dealing with known and notified cases, but from the school attendance of children who there was reason to believe were conveying infection from attacks of so light a character as to have altogether escaped medical treatment, notification, or sanitary supervision. The notified cases themselves were mostly mild in type and none proved fatal, but the schools at North Hagbourne, North Moreton, and Aston were temporarily closed by reason of them.

Diphtheria.—This disease was only notified thrice during the year, but a boy twelve years old succumbed to his attack. Two of the cases, which however were unconnected with each other and occurred in premises in bad sanitary condition (subsequently remedied), were in Cholsey, and the third, also in an insanitary cottage, at Mackney.

Enteric Fever.—At the beginning of the year four attacks of this disease were notified in an isolated cottage situated in a field in Chelsea parish, the patients being a labourer's wife with three of her children. It was ascertained that some eight weeks previously an older daughter, who was in service at Goring at a house where there had been a mild case of the complaint, falling ill was sent back to her home by her employer (who protested his ignorance as to the real nature of her illness) in an open conveyance and on a wet day. She rapidly

developed pneumonia and died a few days afterwards, but her fouled linen was put away in a box and left untouched for a week, and when taken out and washed by her mother she, and her infant she was nursing, fell ill, and in the following three weeks three more children sickened—but no medical man was called in till the last day of December, when the nature of the attacks was recognized and the cases were notified; one of the children died a few days afterwards. The cottage was cleared of all but the patients, two trained nurses being put in charge, and after their recovery, as it was a very decayed and insanitary building, I advised its demolition and it was pulled down. In April a severe but solitary case was notified at Mackney, the origin of which could not be traced, and in November another occurred in a cottage at Cholsey, where a visitor from London had been staying who was just convalescent from an attack of the disease.

Both the notified attacks of puerperal fever occurred in insanitary cottages; and no remarks are called for as regards the three notifications of erysipelas.

As regards the non-notifiable infectious complaints, measles, whooping cough, and mumps prevailed in many localities during the year, and the first-named two caused nearly three-fourths of the year's "zymotic" mortality, and it became necessary to close many of the schools temporarily for all of them.

The births registered in the year were M. 66, F. 76, total 142, and the total deaths in the district were 125. Excluding all but one of the forty-seven deaths in the County Lunatic Asylum, as being persons received into it from outside, and adding five of those in Wallingford Union House as having belonged to the district, the corrected number is M. 42, F. 42, total 84, or 59·1 % of the births. Twenty-four of the deaths were of children less than a twelvemonth old, amounting to the high proportion of 28·6 % of the entire mortality and 16·9 % of the registered births; thirteen of these were however feeble infants who lived less

than four weeks. The birth rate was 22·1 and the death rate 13·2 per 1,000 of the estimated population, 40·5 % of the deaths occurring below five and 38·1 % above sixty-five years of age.

Of the thirteen deaths from zymotic complaints, one was due to diphtheria, one to enteric fever, three to measles, six to whooping cough, and two to diarrhœa—amounting in all to 15·5 % of those from all causes and to the rate of 2·0 per 1,000 of the corrected population.

Four deaths were certified as caused by consumption, and the same number by cancerous diseases, with seven from pulmonary inflammations—the rates per 1,000 being 0·6 and 0·9 respectively.

The wasting and convulsive diseases of children under five years old account for nineteen deaths, or 55·9 % of all occurring at this age period—the rate per 1,000 being 3·0.

Three inquests only were held—all being on deaths from natural causes.

#### CROWMARSH RURAL SANITARY DISTRICT.

AREA 18,558 acres, containing about 1,205 houses and a population of 5,150 (Males 2,587, Females 2,563) at the census of 1891, which is estimated at 5,066 to the middle of 1896.

At the commencement of the year a house to house inspection was made of Brookhampton in consequence of complaints from the Thames Conservancy as to the discharge of slop sewage into the Thame stream from several of the cottages in the village, where also two or three attacks of diphtheria had just been notified, and I had reported to the Council the foul state of some of the ditches near the infected premises. It was found that as seven of the twenty-three cottages of which the village mainly consists had no gardens or land attached to them, and several others had but small plots, on which such slops could

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not be disposed of, a good part of it had been got rid of by passing it into the ditches or road gutters from which it went direct into the river, thus both creating a nuisance on the spot and also fouling the watercourse. As almost all the cottages had allotment gardens within a reasonable distance I advised that the stuff should be utilized on them and all connections with the ditches or road channels abolished..

At Bensington, Berrick, Ewelme, Newington and Holcombe, &c., inspections of various groups of cottages have been made by me, and the results reported to the Authority—the necessary works having been subsequently carried out.

The question of the water supply at Woodcote has also again been under the consideration of the Authority, the Parish Council having made an application to them to provide a water supply for the place under Section 299, P.H.A. /75.

In accordance with the instructions of the District Council the matter was very fully enquired into, and a house to house inspection of the place was made by me with special reference to the consideration of the effect on the health of the villagers, if any, of the existing supply—which, with scarcely an exception, is from rain-water tanks or from certain ponds in different localities. I found that although, during the long-continued absence of rain last summer, both the tanks and the two smaller ponds ran nearly or quite dry, the large (canal) pond still contained a good reserve of water of fair quality, presumably sufficient for fifty days' consumption at the daily rate of five gallons a head for all the inhabitants; nor, after careful enquiry, could I hear of any injury to health which could be at all attributed to its use. It is however a fact beyond question that a large proportion of the inhabitants of Woodcote have long distances to go in order to get water from the ponds to supplement the supply from their tanks, or indeed, in a certain proportion of cases, to furnish their entire supply, and I am of opinion that the plan suggested in my report for last year, viz., cleansing and protecting the ponds from casual fouling and



the laying of pipes from the two principal ones to the chief groups of cottages would meet present requirements.

Six decayed cottages in Woodcote were represented to the Authority as unfit for habitation under the provisions of the Housing of the Working Classes Act, and five of them have been closed.

Mr. Benjamin Tubb was, with the sanction of the Local Government Board, appointed sanitary inspector at the end of Mr. S. C. Johns' term of office, and in his return of work done he reports 334 premises as inspected (seventy-two in detail) and nuisances discovered on 179, of which sixty-nine had been abated by the end of December. The cowsheds, &c. (thirty-four), piggeries (three), slaughterhouses (six), bakehouses (eight) and six canal boats were also inspected and found generally in a satisfactory state.—see Table IX.

Forty notifications of infectious sickness were received during the year, viz.: scarlet fever, seventeen; diphtheria, fifteen; enteric fever, two; erysipelas, six.

Scarlet Fever.—Towards the end of 1895 there had been a certain number of attacks of so-called measles in the village of Crowmarsh, but being of a mild type medical advice was not obtained, and the children had gone back to school after a week or so without any hindrance. In the middle of January a single case of scarlet fever was notified, and a second, which proved fatal, occurring at the beginning of February, all the children who were said to have had "measles" recently were medically examined, and it was found that some of them were still peeling slightly after what doubtless had been mild scarlatinal attacks; and as other children were evidently sickening, a cottage, which was kindly lent for the purpose by Charles Hedges, Esq., was converted into a temporary isolation hospital, and trained nurses being placed in charge, every effort was made to obtain early information of any fresh attack, and each case was removed into it for treatment as soon as it was notified. In all, fourteen persons were treated in the hospital,

including one of the nurses, and there was one death. At the end of the first week in April the outbreak was at an end, and the complaint did not reappear in the district all the year. During the first quarter however three other cases were notified in private houses, but it is doubtful where they originated, and there was no further spread from either of them.

Diphtheria.—During January one attack was notified in a fairly good cottage at Ewelme, and there were two at Brookhampton (followed by a third, which was fatal, early in February), the infection having been brought into the last-named village from outside the district. In the middle of February a limited but severe outbreak occurred at Berrick, Newington, and Holcombe, in Newington parish—six cases being notified in four families between the 19th and 26th, as well as two in a cottage in the same locality but just over the parish boundary. As there was little doubt that all had taken the infection at the school, where there had been a fête just before it began, it was arranged, with the permission of the Rector, to convert it into a temporary isolation hospital, and two trained nurses were placed in charge. All the children were taken into it, and although there were four deaths no further attacks occurred till after the other patients had quite recovered, the schoolhouse been disinfected by a professional disinfecter, and the school work resumed; but early in May a boy living in a cottage where one of the earlier cases had occurred was taken ill, together with a playmate. With the kind assistance of the Rector another available cottage was utilized as a temporary hospital, and happily there were not any further attacks. In addition to the foregoing there were, in the course of the year, two cases in Crowmarsh parish, one of which was in an insanitary house and proved fatal, with one at Nuffield—but from none of these was there any spread.

The two attacks of enteric fever occurred in Bensington in August and October, but were unconnected with each other.

One of them was in an insanitary house, but there was not any traceable history of infection in either case.

The occurrence of these outbreaks, and the heavy cost of their treatment in temporary hospitals, has led the Authority to carefully consider in what way the question of isolation hospital provision could be best dealt with, and, although it has not as yet been definitely determined, I have reason to hope that action will soon be taken in the matter.

The births registered in the year were M. 64, F. 56, total 120, and the deaths 80, increased to 85 (M. 48, F. 37) by the addition of five persons belonging to the district who died in the Union House (three) and County Asylum (two), the "corrected" deaths thus amounting to 70·8% of the births, as against an "average" of 49·2 % for the entire combined district—the death rate per 1,000 amounting to 16·5, as against a corresponding mean rate of 12·3.

The birth rate was 23·2 per 1,000, the infantile deaths (under one year) being 10·8 of the births, but only 15·3% of the deaths at all ages.

The mortality from zymotic diseases included the one death from scarlet fever and the five from diphtheria already referred to, with one from whooping cough—amounting to 8·2 % of those from all causes and at the rate of 1·4 per 1,000.

Consumption was unusually fatal, nineteen deaths or 22·4 % of the total mortality being certified as resulting from it. The death rate for the year being no less than 3·7 per 1,000.

Eleven persons died from pulmonary inflammations, with a rate of 2·2, and nine young children (under five years) from developmental diseases, with a rate of 1·7 per 1,000—the last amounting to 45 % of the entire mortality at this age period.

Four inquests were held, three on deaths from drowning and one on a death from "natural causes."

## WALLINGFORD URBAN SANITARY DISTRICT.

AREA 380 acres, containing at the census of 1891, 605 inhabited houses and a population of 2,989 (M. 1,472, F. 1,517), estimated, after the deduction of the pauper inmates of the Union House not belonging to the district, as amounting to 2,957 at the middle of 1896.

Mr. S. C. Johns, sanitary inspector, in his return of the year's work (see Table IX.) gives 262 as the number of premises inspected by him—and three nuisances as to swine improperly kept, abated. All the houses in the town are now connected with the new sewers and the closets are properly flushed. They also have a water supply from the town mains.

The piggeries (twenty-two), slaughterhouses (five) and bakehouses (six) have been inspected and found to be kept in accordance with the Bye-Laws.

In the annual report for 1895 it was stated that scarlet fever had made its appearance in the town during December and that ten cases had been notified in seven families, some of the patients being in the "peeling" stage when first seen by a medical man, no isolation of the children having been maintained up to that time. In the month of January, 1896, twelve more notifications were received, affecting seven families and resulting in one death, these were followed by three more in February and the beginning of March. Nearly all the cases occurred in the cottages, and the Authority, acting on my advice, engaged two trained nurses to direct and where necessary to carry out the sanitary management of all known cases. Then followed an interval of eight weeks in which no fresh notifications were received, which was followed by a renewed outbreak (traced to a child attending the National School while still slightly peeling, who had not been under medical care and was declared by his mother only to have had measles), there being ten additional attacks in May, four in June, and eight in July, with three and four in August and September respectively.



The great majority of the forty-four cases (affecting twenty-eight families in all) were mild, and there was only one death among them all; but there can be very little doubt that the lengthened duration of the outbreak resulted from the neglect of some of the parents of the children who were attacked to obtain medical advice in slight cases, which therefore were never notified to the sanitary officers—all proper sanitary precautions being also ignored. The epidemic not only put the Sanitary Authority to considerable expense in the provision of nurses, disinfectants and incidentals, but it seriously interfered with the educational work of the year as regards the Elementary Schools, and it also pointed out the necessity that there is for the provision of an Isolation Hospital to deal with the initial cases of such outbreaks and so to cut short their spread and duration. The total number of notified attacks was forty-four, occurring in twenty-eight families.

The only other notifications of infectious disease received throughout the year were one of diphtheria and one of puerperal fever.

Sixty-four births (M. 32, F. 32) were registered during the year and forty-nine deaths—which are brought down to thirty-six (M. 21, F. 15) by the deduction of eleven of those in the Union House and two in the Cottage Hospital of persons not belonging to the district. The “corrected” deaths accordingly were at the rate of 11·9 per 1,000 of the estimated population and amounted to 56·2% of the births—the birth rate being the low one of 21·2 per 1,000.

Seven deaths, or 10·9% of the registered births, occurred under the age of a twelvemonth.

The death from scarlet fever, already mentioned, with one from whooping cough, make up the zymotic mortality for the year; three deaths were due to consumption and five to pulmonary inflammations, the rates per 1,000 of the population being 0·7, 1·0 and 1·6 respectively.



The developmental diseases of children under five years of age account for seven deaths, being seven-tenths of all occurring at this age period.

Two inquests were held, one on a case of suicide and one on a death from accidental burns.

### BRADFIELD RURAL SANITARY DISTRICT.

AREA 55,215 acres, containing about 3,040 houses and a population calculated at 15,183 (M. 7,736, F. 7,447) at the census of 1891—the “corrected” number being estimated at 15,744 to the middle of 1896. There has been a considerable amount of new building in the past year, plans for 108 houses having been submitted for the approval of the Council, being an increase of 25 % on those of the preceding one. Ninety-three were approved and ten were allowed.

Twenty-three certificates as to water supply were also granted for houses completed during the year, and Aldermaston village has been provided by the owner of the property with an excellent supply of water from a deep well, which is conveyed by mains to standpipes or into the houses direct. At Mortimer and also at Burghfield several additional supplies have been furnished, while at Pangbourne, Tilehurst, Janet's Hill and Bradfield one new well has been sunk at each place, and the Tilehurst Waterworks Company are extending their mains and supplies to different parts of their district.

Mr. T. Windle, sanitary inspector, reports 793 premises as inspected during the year ; nuisances were discovered on sixty and abated on forty-two by the end of the year—mainly relating to foul houses and bad drainage. Eleven houses, which were unfit for habitation, were closed voluntarily by the owners in different parts of the district, and there has been a small addition (fourteen) to the number of earth closets in use in it.

The dairy farms (thirteen), slaughterhouses (three) and bake-houses (six) have been inspected and found in good order, and seven nuisances from swine improperly kept were abated.—see Table IX.

Two samples of water were submitted to analysis, one was found to be fairly good, the other distinctly fouled.

During the past year there has been a marked increase in the number of notifications of infectious diseases received from medical practitioners, under the Act, as compared with the two preceding ones. They amounted in all to 118, viz.: ninety-four of scarlet fever, eighteen of diphtheria, five of enteric fever, and one of erysipelas. In consequence of this, and also of letters received by the District Council from the County Council, as well as from the Wallingford District Council, relating to the provision of Isolation Hospital accommodation for the district—a special Committee was appointed to consider the general question—who ultimately came to the conclusion that “it is not, at any rate at present, advisable to establish a central Isolation Hospital,” but “that it is desirable to provide, by way of experiment, isolation accommodation on a small scale upon the lines suggested by Dr. Thorne Thorne in the Local Government Board Memorandum, dated January, 1895, as also to obtain a site which would be suitable for an Emergency Hospital in case of need,” and the Council referred the matter back to the Committee “to enquire further into the best means of carrying out such a scheme.”

Scarlet Fever.—The chief incidence of this complaint was on four parishes in the district, viz.: Burghfield, where there were twenty-eight attacks in twenty-two families scattered over a wide area, and cropping up in small groups from May to September; Mortimer, thirty-one cases in nineteen families, commencing in June and continuing to late in November in three or four different centres; Sulhampstead, twelve in seven families, extending from May to December; and Tilehurst, fifteen in seven families, between March and September. The

remaining eight cases were spread over the parishes of Aldermaston, Basildon, Bradfield, Englefield, and Theale. In every instance careful enquiries were made as to the probable source of infection, and the best available precautions were adopted to check its spread. In comparatively few instances however was it found possible to trace a direct connection between the attacks occurring in different houses and families, while the generally mild character of the outbreaks added considerably to the difficulty of getting the necessary isolation carried out effectually and for a sufficient time. Moreover, there can be but little doubt that there were other cases which never came under any medical treatment or sanitary supervision whatever, either because of their mildness of type or because they were supposed by the parents of the children attacked to be "only measles" or "German measles," complaints for which, among the working classes at any rate, a few doses of medicine from the nearest chemist is too frequently supposed to suffice; and it is also to this that I am inclined to attribute in no small degree the persistence of the infection in the localities where it obtained a hold, several instances occurring in which children were found to be attending the elementary schools in the peeling stage, who had not previously been suspected of having the complaint. Eighty of the ninety-four notified cases occurred (in fifty-two families) during the six months May-November inclusive, the great majority being of a mild type and not presenting any features of special sanitary interest. While only four attacks in all ended fatally, three of these being very young children living in a pair of old insanitary cottages situated in a brickfield at Tilehurst.

Diphtheria.—With two exceptions, all the notified cases of this disease, eighteen in number, were single attacks in the respective families; the principal exception being a group of six cases at Aldermaston Soke, which occurred in an old but fairly sanitated and very well kept house—the infection having been imported in the first instance from outside the district.

In one instance there was some reason to suspect that the complaint was taken from a cat—which was said to have suffered in a somewhat similar way, and with which the child had been playing at the time. Another attack was of interest as illustrating the importance of care in dealing with the lighter forms of the disease—the case being that of a young woman in whom the characteristic symptoms disappeared so quickly (within three days) as to raise some doubt as to its true nature. Bacteriological examination by an eminent expert however proved conclusively the abundant presence of the special organism of the complaint and the necessity for the full observance of sanitary precautions to guard against its future spread. Of the twelve families in which cases were notified, six lived in Pangbourne and Pangbourne Moor—attacks occurred in four during January to March, the other two being in June and November respectively. Careful enquiry failed to discover any intercourse or liability of exposure to infection from one to another as regards these cases, but the locality is a low-lying one and nearly on the river level, and the earliest and latest attacks during the year proved fatal.

Enteric Fever.—Four of the five notified cases occurred during July and August in a group of insanitary and dirty cottages at Janett's Hill, Bradfield; the infection had spread from person to person before the attacks were notified, but the origin of the first could not be satisfactorily made out, no definite history being obtainable. The fifth case occurred in a large residence admirably sanitated, but the disease had been taken on the Continent and before the patient returned to England.

The births registered in the year were M. 192, F. 186, total 378, and the deaths 166, to which must be added eighteen which occurred in Reading Hospital and two in the County Lunatic Asylum of persons who were previously resident in the district. Deducting one death of an inmate of the Union House who had been received into it from Goring Sanitary District, the



“corrected” mortality is M. 92, F. 93, total 185—amounting to 48·9% of the births, and equivalent to a rate of only 11·5 per 1,000 of the estimated population, being the lowest since the passing of the Public Health Act of 1875. The birth rate was somewhat under the average of the year, amounting to 23·6 per 1,000, and the proportion of infantile deaths (under one year) to births did not exceed 7·7%.

The mortality from the principal zymotic complaints was made up of the four deaths from scarlet fever and the same number from diphtheria already mentioned, together with one from measles, three from whooping cough, and one from diarrhœa—or thirteen in all (ten being children under five)—amounting to 7·0% of the deaths from all causes, with a rate of 0·8 per 1,000.

Twelve deaths were recorded from consumption and the same number from various cancerous diseases, while pulmonary inflammations were about twice as fatal (twenty-five), the death rates being 0·8 and 1·5 respectively.

Thirty-two children under five years of age, including fifteen feeble infants who lived less than four weeks, died from wasting or convulsive developmental diseases, being 66·6% of the entire mortality at this age period, another 20·8% being due to infantile zymotic complaints.

Twelve inquests were held, of which five were on deaths from accident or suicide, the remainder being from “natural causes.”

## GORING RURAL SANITARY DISTRICT.

AREA 9,155 acres, containing at the census, 1891, about 620 houses and a population of 2,834 (Males 1,444, Females 1,390) estimated to amount to 3,138 at the middle of 1896. Building plans for thirteen new houses have been submitted to the



Council under the Bye-Laws, of which twelve were "approved" and one "allowed." Water certificates were also granted for three completed houses prior to their occupation.

A house to house inspection has been made by me of the cottages at the Cleeve-Goring, and a report as to their sanitary condition, which was found to be passable—considering the very limited area of the sites on which they stand, was laid before the Council. I have also made a house to house examination as to the water supply of the cottages on Whitchurch Hill, which being mainly obtained from the rain-fall, where the roofs were slated, and from ponds, where they were thatched, had in many cases run very short during the long absence of rain in the summer months, when nearly all the tanks and ponds were dried up, and water had to be fetched by most of the cottagers from a deep well which is at a considerable distance from many of their houses.

Mr. T. Windle, sanitary inspector, reports ninety-nine premises as visited by him during the year; nuisances being found on six, which were abated. He has also reported to the Council on the pond water supply of cottages at Mapledurham.

Twenty-three notifications of infectious sickness were received during the year, viz.: scarlet fever, eighteen; diphtheria, one; enteric fever, one; puerperal fever, one; erysipelas, two.

Scarlet Fever.—This complaint first made its appearance early in September, in a family occupying an old thatched cottage in which isolation of the patient was quite impracticable. The father was the first to be taken ill, but how he contracted the disease could not be ascertained, and the initial symptoms appear to have been so little characteristic that the attack remained unnotified for more than a week after medical advice had been obtained, and by this time there were five cases in the house, one of which proved fatal ultimately. A trained nurse was placed in charge of them. In the first week of November attacks were notified in two other families, but any

communication with the one previously affected was denied; a week later there were cases in four other houses, and as there was reason to believe that there had been some risk of infection spreading through school attendance the schools were closed. At the end of the month and during December the complaint appeared in three other cottages, and the outbreak had not come to an end even at the close of the year—but the only death was the one already mentioned.

Diphtheria.—The solitary case notified was that of a child four years old, who, with the rest of the family, had been away from home for Christmas, all had “bad throats” after their return, and a younger child died on January 12th of what was certified as “spasmodic croup.” It was stated also that the cat had been ailing, and had been killed some few days previous to the girl’s being taken ill—but no further history could be obtained. The attack had a fatal termination.

Enteric Fever.—Nothing could be discovered to account for the single very slight attack which was the only one notified during the year.

The registered births were M. 32, F. 34, total 66, and the deaths 35—the corrected number, including two deaths of persons belonging to the district in the Reading Hospital and one in Bradfield Union House, amounting to M. 16, F. 22, total 38—or 57·6% of the births, which were at the very low rate of 20·6 per 1,000 of the estimated population, the death rate being 11·9 and the proportion of infantile deaths (under one year) to births 8·7%.

The only deaths from zymotic complaints were the one from scarlet fever and that from diphtheria already mentioned—the rate amounting to 0·9 per 1,000. The statistics of mortality as to other classes of disease will be found in Tables VI.—VIII.

The only inquest held was on a death from accidental drowning.

## COOKHAM RURAL SANITARY DISTRICT.

AREA 27,803 acres, containing at the census of 1891, 2,062 houses and a population of 9,861 (Males 4,819, Females 5,042) estimated, after correction for the proportion of Union House inmates belonging to it, and an increase at the same rate as in the ten years 1881-91, as amounting to 10,474 at the middle of 1896.

Mr. Millin, sanitary inspector, reports 340 premises as inspected during the year, and nuisances were found to exist on 106, ninety-nine of which were remedied before its close. Thirty-six of these related to insanitary houses, six of which (at Littlewick Green and at Cookham Dean) were represented by me to the District Council under the Housing of the Working Classes Act as being unfit for habitation; seven were closed, a Justice's order having been obtained for four of the number.

Four samples of well waters were submitted to analysis, all proved to be more or less fouled, and fifteen cases of deficient or impure supply were remedied, as were thirty-nine cases of insanitary closets and drains.

The dairy farms (fourteen), piggeries (four), slaughterhouses (four), and bakehouses (seventeen) were inspected and found to be properly kept.

Complaints of offensive effluvia at Braywick cottages and coming from the watercourse which receives the effluent from the Maidenhead sewage works were investigated by me, and will be again referred to in the report for that district.

House to house inspections were made of Nightingale Place, Cookham, and of some portion of Waltham St. Lawrence, Touchen End, Cox Green, Furze Platt, &c.; as also of all premises in which the occurrence of zymotic diseases had been notified, reports thereon being laid before the Council.

Twenty-nine cases of infectious sickness were reported, as to which thirty-seven notifications were received (including eight

duplicates), viz.: scarlet fever, eleven; diphtheria, fourteen; enteric fever, two; puerperal fever, one; erysipelas, one.

Scarlet Fever.—In only two instances was there more than a single case in a family, and there was not any spread of infection from either of them. Two attacks were notified in one house in January, one in April, five in July (four occurring in a very dirty and insanitary cottage in the Windsor Road), and three in different parts of the district during September. No definite history of known exposure to infection could be made out as to either of them—and all recovered.

Diphtheria.—With the exception of a single case at Cookham Rise—in a family who had only just come into the place, which was notified in February—no notifications of attacks of this complaint were received till the middle of July, when three fatal attacks occurred in a passably good cottage at Apple House Hill. There had indeed been cases in Maidenhead since May, but no connection could be traced between these or indeed most of the other attacks in this district, and those in the borough. The children attended a school near at hand till their illness began, and no other cases occurred in the locality. About the same time there was a single slight attack in a cottage near the Union House, as also five in a family living in Altwood Road. In both instances the children attended Boyn Hill School, but at that date no other known cases had occurred amongst the children going there. In August the case of a young man who was removed to Bray from a house in the borough, while suffering from the disease, proved fatal—the nurse in charge being also attacked. In October a child three-and-a-half years old died from the complaint at Bray Wick, and at the end of November there was another non-fatal attack at Boyn Hill. Inspection of the respective premises failed in most cases to reveal any sufficient explanation of the attacks, and in no one of them could any communication between the respective families be made out; nor was there any factor common to them in the way of school attendance,



sewerage, water or milk supply. There were six deaths in the fourteen cases notified.

Enteric Fever.—Both the cases notified had a fatal ending ; in one instance the complaint had been contracted in Paris, in the other the patient had just returned from India, out of health, and the house to which he came proved to be in a very insanitary state, which was remedied subsequently.

There was no sanitary history attached to the one case of puerperal fever or to that of erysipelas. Each proved fatal.

The births registered during the year were M. 154, F. 129, total 283, and the deaths were 117—to which seven of those in the Union House, five in the Cottage Hospital, Maidenhead, two in Reading Hospital, and one in the County Asylum have to be added of persons previously living in the district, thus making the corrected number M. 75, F. 57, total 132—equal to 47·7 % of the births, and at the rate of 12·4 per 1,000 of the estimated population. The birth rate was 26·5 per 1,000, and the infantile deaths (under one year), twenty-five in number, were 8·7 % of the births, nearly half (twelve) of them being feeble infants who lived less than four weeks.

The deaths from the principal zymotic diseases, eleven in number, have been already for the most part referred to ; they included diphtheria, seven (of which one occurred in Maidenhead Cottage Hospital, the child having been taken there from Bray) ; enteric fever, two ; with one each from measles and diarrhœa, the latter complicated with “chill and chicken pox.” They account for 8·3 % of the entire mortality, and were at the rate of 1·0 per 1,000.

Nine deaths were due to consumption, or 6·8 % of those from all causes, with a rate of 0·8 per 1,000, and cancerous diseases account for seven.

Pulmonary Inflammations were fatal to fourteen persons, four being children under five years old, the death rate and the proportion of total mortality being 1·3 and 10·6 % respectively.



The wasting and convulsive developmental diseases of children under five account for eighteen deaths, being 60·0% of all at this age period; (30), as were the fatal infantile zymotic attacks for 13·3% of the same. The death rate for wasting diseases, &c., was 1·7.

Only five inquests were held, three being on deaths from accidental drowning and the others from "natural causes."

### MAIDENHEAD URBAN SANITARY DISTRICT.

AREA 2,123 acres, containing at the census of 1891, 2,071 houses and a population of 10,607 (Males 5,131, Females 5,476) which, after allowance for increase at the rate of the preceding census period and for deduction of the proportion of inmates of the Union House belonging to the rural district, is estimated as amounting to 11,745 at the middle of 1896.

The prolonged delay in the satisfactory completion of the new sewerage works has much interfered with, and in many instances entirely prevented, the carrying out of works urgently required to put the premises concerned into proper sanitary condition; but I venture to think that the Council exercised a very sound discretion in refusing to take over any sewers, which were found to be leaky when tested, until they had been made thoroughly sound and watertight. This decision has however of necessity postponed the putting in of the house connections to the new sewers, and involves the continuance, for the time being, of the very inefficient and insanitary cesspool arrangements hitherto in use. The main drainage works are however now all but completed, and I trust that in the coming year the putting in the connections to the houses may be pushed on vigorously and on sound lines so that the borough may reap the full benefit of the amount expended.

The question of the treatment of the sewage at the outfall works has had much attention from the Council, and an experi-

mental plant having been put up there by the British Electrozone Corporation, Limited, the sewage was treated with electrozone under their direction and by their staff, after its passage through the old filtration beds, and prior to its discharge into the watercourse which skirts the meadow on its way to Braywick and ultimately to the Thames.

The experiment as conducted at Maidenhead essentially consisted in the treatment of the strained sewage with a solution of nascent chlorine and chlorous compounds obtained from the decomposition by electrolytic action of a solution of common salt—in the proportion of about two grains of chlorine to the gallon of sewage. The sewage itself, after passing through the filter bed, was delivered over a wooden shoot, the delivery pipe being side by side with a smaller one for the electrozone, the mingled fluids then passing along wooden troughs fixed by the side of the watercourse for some few hundred feet so as to ensure their being well mixed before they reached the point of discharge, where they passed into the watercourse direct and without any further treatment. In estimating the effect of the experiment on the watercourse itself, it is to be noted that it was only carried on in the day time and between the hours of 9 a.m. and 6 p.m., so that untreated sewage went into the stream for the rest of the twenty-four hours after simply passing through the filter bed.

The watercourse in question was undoubtedly in a very foul and bad state when the experiment was commenced, and there cannot be any doubt but that it very greatly improved after the treated sewage was passed into it—the great masses of Beggiatoa (“sewage fungus”) breaking up and gradually being carried away by the stream, which though still turbid, changed greatly for the better, both as regards colour, turbidity, and freedom from smell. The claim made for “electrozone” being that it was fatal to bacterial growth, I advised the Council that samples of untreated and of treated sewage, as also of the watercourse itself above and below the outfall of the treated effluent, should

be sent to a leading bacteriological expert for examination and report; and acting on my opinion the four samples referred to were taken by me with the assistance of Mr. Barford, sanitary inspector, with the necessary precautions, and were by him immediately taken up to Professor Klein, by whom a very complete examination of each was made, the details of which need not here be recapitulated further than to state that they included cultures in phenol gelatine, phenol broth, and sugar gelatine. His results may thus be summarized: A. "Untreated sewage" contained three million aerobic microbes per centimeter, (of which a third could thrive in phenol gelatine), numerous bacillus coli, as well as a considerable number of spores of anaerobic microbes—all strong gas formers and rapidly liquifying sugar gelatine. B. "Treated effluent" contained 160 aerobic microbes per centimeter, (a fourth of which would thrive in phenol gelatine), numerous bacillus coli being still present in "broth" cultures. The spores of anaerobic microbes were about 60 per centimeter, and gas formers. C. "Stream above sewage meadow"—7,000 aerobic microbes per centimeter, of which about a sixth thrived in phenol gelatine—bacillus coli absent, and only ten spores of anaerobic microbes, few being gas formers. D. "Stream seventy yards below outfall of treated effluent." About 20,000 aerobic microbes per centimeter, about one-fifteenth thriving in phenol gelatine—which, with the broth cultures, still yielded bacillus coli. The anaerobic spores were 16 per centimeter, some rapidly liquifying sugar gelatine and also strong gas producers. Professor Klein's conclusions were to the following effect: The treatment caused an immense destruction of aerobic microbes, reducing them from three millions to one hundred and sixty per centimeter, but it left a good many anaerobic spores still in the treated effluent, while the aerobic microbes in sample D were nearly thrice as numerous as in the stream above the point of entrance of effluent (sample C); and in offering various possible explanations of the results obtained, he calls attention to the

fact that while the bacillus coli was apparently absent from the stream *above* the sewage meadow, many were found both in the treated effluent and in the stream below its point of discharge.

In addition to these bacteriological examinations, I submitted corresponding samples, taken at the same time, to analysis—but with negative results, the amount of chemicals added to the sewage in the electrozone process greatly masking any changes thereby effected in it. It should however be pointed out, in explanation of some of the results, that the experimental treatment of the sewage was carried out with only an improvised plant, and that so far as the stream itself was concerned, a certain small proportion of “untreated” effluent went into it pretty continuously, and as the treatment itself was entirely suspended after about 6 p.m. any sewage coming to the works during the evening and night of necessity passed into the stream untreated except by its imperfect straining in the filter beds.

In view however of the favourable results already obtained, notwithstanding the incompleteness and limitations of the experiment, I should expect that the destructive effect of the electrozone on the more resistant microbes, and spores, would be much more absolute if the sewage was treated with it in the tanks; so as to allow of its action being continued for such time as might be found sufficient, instead of for some three or four minutes only, as in the experimental trial. And further, the whole sewage of the twenty-four hours must necessarily be treated, and provision should be made for removing the turbidity of the effluent before it is discharged into the stream, either by passing it through a properly prepared filter bed, or through land.

While the experiment was continued I, on several occasions, examined the stream as far down as Bray Wick, and especially in reference to complaints by the Cookham Rural District Council of offensive effluvia coming from it in that part of its course, especially towards evening, and I found that when the



amount of electrozone used was increased the smells were no longer observed, except on one or two occasions when a quantity of sewage fungus, which had been broken up and detached by it, came down the stream and was caught by some obstructions in the bed of the stream at this point, where it decayed and became offensive until it was cleared out.

Mr. Barford, sanitary inspector, reports 801 premises inspected during the year, with nuisances discovered on 193, of which 186 were abated by its close; 161 of the number related to overflowing cesspits and blocked drains, which could only be temporarily abated in consequence of the non-completion of the sewers already referred to.

The cowsheds, slaughterhouses, bakehouses, piggeries, and common lodginghouses were also inspected, and six nuisances abated as regards the first two.—see Table IX.

At Boyn Valley considerable improvement has been effected as to the surface and road drainage, which after much rain formerly accumulated there to a serious extent, but now, by the action of the Town Council and the Great Western Railway Company, is entirely carried away in accordance with a plan suggested by the inspector.

The Notification of Infectious Diseases Act not being yet adopted by the Council, I still receive but few intimations of the occurrence of cases in the district unless (when they are fatal) through the Registrar of Births and Deaths—the total number for the year being, scarlet fever, twelve; diphtheria, four; erysipelas, one.

Scarlet Fever.—All the attacks heard of were enquired into and watched, and the masters of the elementary schools communicated with as occasion required.

Diphtheria.—This disease was not wholly absent from the district for the last seven months of the year—there being one death from it in each month; such enquiries as were practicable failed to reveal any extensive prevalence of the complaint, but



in the whole year it caused nine deaths, of which one indeed was a case removed from the rural portion of Bray to the Cottage Hospital where it ended fatally; but, on the other hand, one of the deaths from this disease in the rural district was that of a young man taken into it from the borough—as explained in the report for that district. The medical man who attended one of the children who died has kindly furnished me with some interesting details with reference to it. He says: “the child in question had distinct scarlet fever on the 14th May, no source of infection could be traced, and the house was in fair sanitary order; four days later the mother took the disease and subsequently desquamated freely. The child recovered, but only to be attacked by typical measles on the 27th, and by equally typical diphtheria on June 5th. It died on the 8th. At this time another child in the same family fell ill with chicken pox, and a fortnight later there were two other cases in the same house—the whole making up such a series as is seldom met with.”

Two attacks of enteric fever occurred early in the year in the centre of the town. The sanitary condition of the locality was not good, and one case was fatal.

During the second quarter measles was prevalent in some localities, as was whooping cough in the fourth quarter. Comparatively few cases were reported in the returns of pauper sickness, but they resulted in eleven infantile deaths, of which six were due to the first named, all but two of the children being between five and eighteen months old.

The births registered during the year were M. 150, F. 175, total 325, and the deaths 181—from which seven of those in the Union House and eight in the Cottage Hospital have to be deducted as being persons not belonging to the district; adding three deaths in the County Asylum of previous residents, the corrected number is M. 84, F. 85, total 169—amounting to 52% of the births, and to a death rate of 14·1 per 1,000 of the

population; the birth rate being 27·1, and the thirty-nine infantile deaths (under one year) 12% of the births, sixteen of these were feeble children who lived less than four weeks. All these rates are in excess of the corresponding "mean rates" for the year of the combined sanitary district, as was the proportion to deaths at all ages of those occurring under five years—see Table VII.—which amounted to 36·1% of the entire mortality—only 23·7% being persons above sixty-five years of age.

The principal zymotic diseases occasioned twenty deaths—already referred to—all but three being children under five years old. They accounted for 11·8% of those from all causes and to 27·9% of the mortality among young children. The death rate was 1·7 per 1,000.

Consumption was fatal to seven persons, the percentage of total mortality being 4·1% and the death rate 0·6 per 1,000. Cancerous diseases accounted for sixteen deaths.

Twenty-three persons died from pulmonary inflammations, nine being children under five, the rate and percentage of total deaths being 1·9 and 13·6% respectively.

Twenty-six deaths resulted from the wasting and convulsive diseases of young children (under five), being 42·6% of all those—sixty-one—occurring at this age period.

Twelve deaths occurred in the Cottage Hospital, of which four resulted from accidental burns and one each for accidental violence and poison. Only four were persons belonging to the district.

Eighteen inquests were held, they included five cases of burns, four of other accidents, with two each of wounds and of suffocation, and two of suicide, three being on deaths from natural causes.

## EASTHAMPSTEAD RURAL SANITARY DISTRICT.

AREA 27,033 acres, containing 2,579 houses at the census of 1891 and a population of 13,704 (Males 6,846, Females 6,858) estimated at 13,660 to the middle of 1896, after the deduction of the "special" inmates of the public institutions in the district, but who do not belong to it.

The Bracknell sewerage works having been completed, the house connections have been made in accordance with the prescribed regulations—under the direction of Mr. H. Lloyd, and 320 premises have been connected with the sewers up to the end of the year, leaving only some thirty to be done; all cesspits, &c., have been abolished and filled in, and every effort is being made to get water laid on to the closets for flushing purposes. Mr. Lloyd has also been placed in charge of the sewage farm, twenty-two acres in extent, which on inspection I found was being rapidly got into satisfactory working order, and good crops of mangolds, swedes, and Italian rye grass have been already obtained. Complaint was made in October of offensive effluvia coming from the farm, but after careful enquiry on the spot I satisfied myself that there was little if any ground for it. When every arrangement is completed, a good effluent may be looked for, as well as the absence of any nuisance, while there will be less than a dozen outlying premises within the drainage district which it will not be practicable, or necessary to connect with the sewers.

The question of the pollution of the Blackwater stream has received a good deal of consideration by the District Council, to whom a complaint with reference to it had been submitted by the County Council. In accordance with their instructions I made a thorough inspection of the whole course of the stream within the boundaries of the district, in company with Mr. Pigg, county and district councillor, and Mr. H. Lloyd, sanitary inspector. Seven samples of water from various points in the stream and the watercourses entering it—including those

which receive the sewage effluents of Wellington College, the Royal Military College and Broadmoor Asylum—were taken by my direction for analysis, and I found that while the samples taken from the river, both at its entrance into and its exit from the district, were seriously fouled and quite unfit for drinking purposes, there was a distinct improvement in the water in its passage through it; the sample from Blackwater Bridge being considerably fouler than that taken near Yateley, while, with the exception of the Royal Military College effluent (which was a very bad one), the sewage effluents from the other institutions were good, and the streamlets into which they passed were very greatly superior to the main stream itself.

Three samples of well waters were also submitted to analysis, all proved to be very impure and fresh supplies were provided.

Eleven houses were represented to the Council under the Housing of the Working Classes Act as being unfit for habitation, viz.: Clay Lane, Bracknell, five; Vicarage Lane, one; Bullbrook, one; West End, Warfield, four—and five were closed.

Mr. Harry Lloyd, sanitary inspector, in his return of work done during the year, reports 560 premises as having been inspected; nuisances were found on 460 and remedied on 442, of which 342 related to closets and drains.

Twenty-seven dairy farms and ten slaughterhouses were visited, and nuisances were found and abated on two, as also on two bakehouses. Twenty insanitary houses were put in order, and water supply was provided for thirty-two premises.—see Table IX.

Fifty notifications of attacks of infectious sickness were received and dealt with, viz.: scarlet fever, twenty-one; diphtheria and membranous croup, seven; enteric fever, four; puerperal fever, one; erysipelas, seventeen.

Scarlet Fever.—In the first quarter of the year six attacks were notified in different parts of the district, one being that of a boy who was sickening for the complaint when he returned to school after the Christmas holidays, the others occurred in two



other families—the patient in one instance being brought home ill from Reading where she took the infection. No further cases were reported till the autumn, when there was an outbreak of a mild type in one of the schools, nine attacks being notified, but every possible precaution being adopted it soon came to an end and there was not any spread of infection outside. In the last quarter six notifications were received relating to four families, all but one lived in Sandhurst. None of the attacks were fatal, the only death from the complaint during the year being one in January of a child two years old who was taken ill towards the close of 1895.

Diphtheria.—In January and in March two young children living in Binfield were notified as suffering from membranous croup, and both died. In May a mild attack occurred in a dirty cottage in the most insanitary part of Bullbrook—much difficulty was experienced in carrying out proper sanitary precautions from the refusal of the mother of the patient to act on the instructions given; and in August and September two additional cases occurred in cottages in the same neighbourhood, one of which was fatal—this being the only death from the complaint. The only other attacks notified during the year were one in Binfield, where the infection had probably been imported from Birmingham, and another at an institution in Sandhurst parish.

Only four notifications of enteric fever were received during the year, one in each of the months March, April, September, and October. There was not any traceable origin to be made out in either case, two of them occurred in different parts of Sandhurst and on well sanitated premises. No connection could be established between them and all ended in recovery.

As regards the non-notifiable zymotic complaints, measles prevailed to a considerable extent at different times of the year in various parts of the district, causing, in April, two deaths in Eāsthampstead Union and one in Crowthorne during December. It became necessary to temporarily close two schools in Sand-



hurst on this account, as also an infant school at Ascot because of an outbreak of whooping cough, which was fatal to three infants.

There was a good deal of influenza in the district at various times, and five deaths were due to it.

The births registered during the year were M. 184, F. 183, total 367, the total deaths being 165—which, after correction by the exclusion of the eleven deaths of criminal lunatics in Broadmoor Asylum and the addition of three in the County Lunatic Asylum and one in Reading Hospital—gives as the corrected number M. 81, F. 77, total 158, amounting to 43·1 % of the births and at the rate of 11·3 of the estimated population; the infantile deaths (*viz.*, twenty-six under one year) being only 7·1 % of the births, which were at the rate of 26·4 per 1,000. These figures are satisfactory, the birth rate being in excess, while the death rate and the percentages just mentioned are well below the corresponding mean rates for the year of the combined sanitary district.

The deaths from the principal zymotic diseases (nine being children under five years old) including those already referred to, with three from diarrhoea, were fifteen—being 9·5 % of those from all causes and at the rate of 1·1 per 1,000.

Consumption was fatal to thirteen adults, with a percentage to the total mortality of 8·2 % and a death rate of 0·9. There were six deaths from cancerous diseases.

Of the seventeen deaths from pulmonary inflammations seven were of children under five years old, the rate and percentage being 1·2 and 10·7 % respectively.

The wasting and convulsive developmental diseases of young children (under five) account for nineteen of the thirty-nine deaths occurring at this age period, being 48·7 % of the whole and at the rate of 1·4 per 1,000 of the population.

Eight inquests were held, exclusive of those on the deaths occurring in Broadmoor, four being on cases of suicide, two of accident, and the remainder on deaths from natural causes.

## WINDSOR RURAL SANITARY DISTRICT.

AREA 12,143 acres, containing about 2,480 houses and a population of 12,599 (Males 5,991, Females 6,608) at the census of 1891; estimated at 13,614 to the middle of 1896, after deduction of the "special" inmates of public institutions within the district who do not belong to it.

Early in the year a memorial, signed by fifty householders of Ascot and Sunninghill, was presented to the District Council with reference to the sanitary condition of various parts of the parish, expressing the opinion that "nothing short of a complete system of sewerage" would suffice to put the neighbourhood into a proper state; and the same being referred to me "for consideration and report, as well as the drainage of Sunningdale," I made a careful examination of the whole, and a house to house inspection of a great part of the area to be dealt with, viz.: Ascot proper, South Ascot, Sunninghill village, and Sunningdale, and submitted my conclusions to the Council in a report which was subsequently printed, pointing out that as regards Ascot itself, hardly a dozen out of the 114 premises (approximately) on the north side of the main road had the necessary space of garden ground on which the sewage could be dealt with without risk of nuisance or danger to health; that at South Ascot (The Bog) some hundred or more small tenements are without proper drainage or water supply; that at Sunninghill village there are about two hundred and fifty houses, mostly small ones, in much the same or even a worse condition, frequently recurring nuisances and attacks of serious preventible sickness being reported there from time to time; and that although at Sunningdale the state of things is somewhat better on the whole, both at the "Rise" and in the village, proper sewerage is much needed for a considerable proportion of the small houses—while at the "Nursery" and the "Square" the state of matters was exceedingly insanitary. I also called attention to the fact that, as a considerable and an increasing

proportion of the houses now have their water supply from the mains of the Water Company (which traverse the district), the amount of slop water to be dealt with has much increased, but in view of the engineering and other difficulties which would have to be faced, on account of the varying levels and the wide area to be provided for, I suggested to the Council that they should refer the whole question to an engineering expert to advise as to the best way of dealing with the matter.

The Authority having applied to the Local Government Board for their sanction to a loan of £10,000 for the purpose of the Clewer (Rural) Sewerage Scheme, an enquiry was held by one of their Inspectors, Rienzi Walton, Esq., C.E., in September, at which I gave evidence as to the great need that there was for the provision of such sewerage for the whole area included in the engineer's plan.

Six houses have been represented to the Authority under the Housing of the Working Classes Act as being in a state unfit for occupation, viz.: five at Spital and one at Sunninghill.

The faulty sanitary arrangements at Gardener's Cottages, nearly a hundred in number, have been again brought under the attention of the Authority, and after considerable difficulty and delay an agreement was arrived at with the owner's agents as to what should be done, but the actual works had not been put in hand at the close of the year.

In consequence of a complaint to the Local Government Board, made by a resident in Old Windsor, as to the state of some of the cottages near his residence and an alleged outbreak of scarlet fever in the parish, a special inspection was made in reference to the same and a report laid before the Council, a copy being also sent up to the Board.

Several other blocks of insanitary dwellings in Clewer Without, as also at Clewer Fields, and at Clewer Village, Clewer Hills, Old Windsor, &c., were inspected and reported on as to their drainage, &c.; and a good deal of attention has also been given to the state of the Clewer ditches, the main

ditch being thoroughly cleaned out under the supervision of the sanitary inspector, and every effort made after this had been done to keep them free from fouling by slop sewage.

Twenty-six samples of well waters have been submitted to analysis, viz.: from Ascot, one; Clewer, five; Old Windsor, ten; Sunninghill, ten. Only two proved to be "good" and two of "fair quality," seven were "very suspicious," and the remainder "bad" or "very bad."

Twenty-three houses had fresh water supply provided for them.

Mr. G. Watts, sanitary inspector, in his returns for the year, reports 800 premises inspected, nuisances being discovered on 594 and abated on 490 of the number; 212 of them related to foul closets and drains, forty-nine to foul and dilapidated houses, &c., and thirteen to swine or other animals improperly kept. Two cowsheds were added to the register, and nine—with three milk shops were inspected, as were twenty piggeries, ten slaughterhouses, and twelve bakehouses. Nuisances were abated on six of the cowsheds, &c., and three on the slaughterhouses and bakehouses. Sixteen canal boats were also inspected and two workshops.—see Table IX.

Thirty-five notifications of infectious illness were received, (being less than half the number for 1895, and the lowest since the Act came into operation), viz.: scarlet fever, twenty; diphtheria, eight; enteric fever, three; puerperal fever, one; erysipelas, three.

Scarlet Fever.—In the early months of the year there were a few attacks of this complaint, in Spital and Clewer (six), Ascot (five), Sunninghill and Sunningdale (three). In each instance there was only one case in a family. On enquiry into the Spital cases it was found that children in some other families had been ailing, and were still "peeling" on the hands, &c., at the time of my visit, but they had not had medical advice or been notified, and no isolation, &c., had been attempted. It is probable that they originated the infection of



the notified attacks. Early in June and at the end of October four cases in all were notified in different localities in Old Windsor, one being that of a girl who was "peeling" when first seen by a medical man. There was not any traceable connection between the earlier and the later attacks, but, while—after careful enquiry—no more cases of this complaint could be discovered, it was found necessary, in September and October, to close the National Schools for four weeks on account of a wide-spread outbreak of measles, which resulted in one death.

Diphtheria.—With the exception of a small group of five attacks, which occurred at an institution in Clewer, of which all but the first—the origin of which could not be accounted for unless it had been contracted in London—probably resulted from direct infection from it, there were only four cases—all fatal—notified at long intervals throughout the year. In two instances the medical attendant was not called in till shortly before the death of the patient, and no definite clue to the cause of the illness could be discovered.

Enteric Fever.—Two cases occurred in January at a house in Clewer, which was in poor sanitary condition, and there was one other at South Ascot in July.

Outbreaks of measles rendered it necessary to close the National Schools at Sunningdale and at Old Windsor for some weeks. This complaint occasioned two deaths, one being a child three years old and the other a woman of thirty, whose attack was complicated with fatal pulmonary inflammation.

The registered births for the year were M. 174, F. 152, total 326, and the total deaths 157—reduced to the "corrected" number 138 (M. 74, F. 64) by the deduction of fifteen deaths in the Union House and eight in St. Andrew's Hospital of persons not belonging to the district, while four occurring in the County Asylum have to be added as persons previously resident in it. The deaths were only 42·3 % of the births, and at the very low rate of 10·0 per 1,000 of the estimated population, being indeed much the lowest rate yet reached in the district. The birth rate



was also a low one 23·5, the infantile mortality (twenty-seven under one year—of which sixteen were children living for less than four weeks) being only 8·3 % of the births.

Seven deaths—already referred to, with one from whooping cough, make up the entire mortality from the chief zymotic diseases, being but 5·1 % of those from all causes and at the rate of 0·5 per 1,000 of the population.

Eleven deaths were due to consumption, with a rate of 0·8 and a percentage of total mortality of 8·0 %. Cancerous diseases were fatal to six persons.

Pulmonary Inflammations account for twenty-one deaths—eleven were children under five years old, the rate and percentage being 1·5 per 1,000 and 15·2 % respectively.

There were twenty deaths of children under five from wasting or convulsive developmental diseases, amounting to 43·5 % of all occurring at this age period and at the rate of 1·4.

Of the five inquests held three were on violent deaths, including one case of murder, the other two were from natural causes.

#### EGHAM RURAL SANITARY DISTRICT.

AREA 7,786 acres, containing (approximately) 2,000 houses and a population of 10,187 (Males 4,844, Females 5,343) at the census of 1891 — estimated, after deduction of the special inmates of the Sanatorium at Virginia Water and the addition of the “pro rata” increase of population from that date, as also of the proportion of inmates of the Union House belonging to the district, as amounting to 10,568 at the middle of 1896.

The matter of the insanitary cottages at the Sandpits, Englefield Green, has received further attention during the year. The Council have considered the question of the provision of new cottages under Part III. of the Housing of the Working Classes Act so as to provide accommodation for the

persons who would be turned out of their dwellings if the cottages which were found on examination to be absolutely unfit for occupation, were closed; and the County Medical Officer of Health, Dr. Seaton, gave valuable assistance in relation to this part of the question. It was found, after a careful inspection which was made by me in conjunction with Mr. Menzies, surveyor and sanitary inspector, that fifteen of these cottages were in such a dilapidated and insanitary state as to be entirely unfit for habitation, and that several others were in but very slightly better condition. A piece of ground was offered to the Council by the Crown for the purpose of building thereon the proposed new cottages, but after it had been seen by a Committee appointed for the purpose it was agreed that the proposed site was for several reasons unsuitable, and the then owner of the "Sandpits" having died, the question has since remained in abeyance, pending the carrying out of a projected plan of demolition and rebuilding by his successors.

Eight cottages in Sweep's Lane, Egham, which I had reported in 1895 as so insanitary as to be unfit for habitation, but which had had a little done to them in consequence of the notices served, have been again represented to the Council by me under the Act, but from the difficulty of finding other or better dwellings for the occupiers if these were closed, they still continue to be occupied; and there are others at Thorpe Lea, to which the same remarks would apply. Fortunately for the health of the district, the use of the water supplied from the mains of the Water Company progresses steadily as they are from time to time extended to fresh localities in it. Four samples of the well waters were submitted to analysis, all of which were contaminated and two to a serious extent.

The question of the provision of an isolation hospital for infectious cases has not advanced during the year, no suitable site for it being at present obtainable; but had such accommodation been available it would have been of great service as regards some of the scarlet fever and diphtheria attacks that have been notified.

As regards the question of providing sewerage for Egham itself nothing has been done, but complaints have been received from time to time of nuisances arising from offensive drains, the emptying of cesspits, the burying of filth in the small back gardens, which, though abated as far as practicable—can neither be entirely prevented, nor effectually dealt with under present conditions.

My attention has also been called to an alleged nuisance arising from the encampment of a number of gipsy caravans for many weeks together on the Meads adjoining the river at the lower part of Egham. I found there were some twelve or fourteen of them, without any kind of closet accommodation or water supply, several being also much overcrowded as regards sleeping space. The vans were however for the most part very cleanly kept, and in the end the Council decided, after I had reported to them on the matter, to allow it to stand over, and after a time the encampment was broken up without any legal proceedings on their part.

Mr. Wm. Menzies, sanitary inspector, in his annual return of work done in the district, reports 229 premises as inspected and twenty-nine as surveyed in detail; nuisances were found on ninety-eight, of which eighty-one relating mostly to foul closets (forty-seven), or drains (thirty-five), and to deficient or impure water supply (thirty-four) were abated before the close of the year. Eight cowsheds and milk shops were inspected, and one was added to the register. Five piggeries and the same number of slaughterhouses and of bakehouses were also inspected, all were found to be in satisfactory condition and free from nuisance.—see Table IX.

Twenty-two houses in the Sandpits and in Sweep's Lane were reported as unfit for habitation under the Housing of the Working Classes Act, but they have not been closed, as those in Sweep's Lane were somewhat improved, and the matter of the Sandpits cottages is, as already stated, temporarily in abeyance.

In the report for 1895 it was mentioned that application had been made to the Local Government Board to grant the District Council certain additional Urban Powers to enable them to make up eleven bye roads and for sundry other purposes, and that an enquiry as to this matter had been held by one of the Board's Inspectors towards the close of that year. The following powers have now been granted, viz.: those of Section 47, P.H.A. 1875, and of Sections 20 (2, 3, and 4), 23 (so much as is not already in force), 24, 32, and 34 to 40, P.H.A.A. 1890 inclusive.

The district, in common with most others in the Sanitary Combination, has been almost free from serious epidemic outbreaks during the past year, but thirty notifications of attacks of infectious complaints were received, all of which were enquired into and supervised, viz.: scarlet fever, nineteen; diphtheria, five; enteric fever, three; puerperal fever, two; erysipelas, one.

Scarlet Fever.—All but three of the cases notified occurred in the first five months of the year, and, with the exception of a small group of six at Thorpe Lea, were spread over different parts of the district, and were apparently unconnected with each other. In one instance there was reason to think that infection had been taken by three children who were present at a children's party, where it was alleged that another child was a guest who had not entirely recovered from the complaint. This however was strenuously denied, though the fact remains that the three who were attacked were those who had been most in contact with the child in question. For the most part there was only a single case in a house, and only one attack had a fatal termination.

Diphtheria.—Of the five notified cases, one of which was fatal, four occurred at the end of May and in June, two were in the neighbourhood of the Sandpits and two at the lower part of Egham. No connection could be traced between them, nor any known exposure to infection.

Enteric Fever.—In one of the three attacks the complaint was



contracted in France, the origin of the other two, both of which occurred in the lower part of Egham during April, could not be cleared up. One ended fatally.

One death was recorded from blood poisoning, affecting the throat, lungs and kidneys, which was attributed by the medical attendant to the offensive and dangerous emanations given off from several trucks of steaming manure, which, in accordance with the practice of the Railway Company, had been brought from London and left standing in the siding at the station adjacent to the house. The facts of the case were fully enquired into and reported both to the County Council and the District Council, and a communication was addressed to the Company by the latter body urging them to adopt such regulations with respect to the manure traffic as would ensure its not being brought into close proximity to dwellinghouses, as also its delivery and removal immediately on its arrival at the station to which it was consigned.

The births registered during the year were M. 168, F. 119, total 287, and the total deaths amounted to 129, from which twenty-five of the twenty-six occurring in the Holloway Sanatorium must be deducted as being persons received from outside the district, while four deaths in Surrey Lunatic Asylum, one at Moultsford Asylum and four in Windsor Union House have to be added as belonging to it. The "corrected" number is therefore M. 63, F. 50, total 113, and the death rate per 1,000 of the estimated population, calculated for a year of fifty-three weeks, is the low one of 10·5—being indeed the lowest yet reached, and nearly 2 per 1,000 under the mean rate for the year of the combined district. The birth rate—26·6—was almost as much above the corresponding "mean," the percentage of deaths to births being only 39·4, and of infantile deaths (under one year) to registered births 8·0. The heaviest proportional mortality occurred however amongst persons in the active working period of life, and between twenty-five and sixty-five, over 40% of the deaths being in this age period.



The mortality from the principal zymotic diseases (five) was made up of a single death each from scarlet fever, diphtheria, enteric fever, whooping cough, and diarrhœa—three being children under five years of age. The death rate was 0·5.

Influenza however, which was more or less present in the district through the greater part of the year, was (as a result of pulmonary complications, mostly) as fatal as all the other zymotics combined—six deaths resulting from it, with a rate of 0·6 per 1,000. The same number were due to various forms of cancerous diseases.

Consumption accounted for twelve deaths, or 10·6% of the mortality from all causes, the rate being 1·1; while five only were certified as resulting from bronchitis and other pulmonary inflammations.

The wasting and developmental diseases of children under five years caused twenty deaths, or 71·4% of the entire mortality at this age period, twelve being feeble infants who lived less than a month.

Inquests were held on five cases of death from accident or violence, viz.: three of drowning, one of suicidal poisoning by oxalic acid, and one of accidental poisoning by belladonna administered in mistake for hemlock.

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TABLES  
OF  
STATISTICS,  
1896.

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# BERKSHIRE COMBINED SANITARY DISTRICT. 1896.

## TABLE I.

‡ In the columns marked thus (‡) the deaths in Hospitals, in the Public Lunatic Asylums, and in Union Houses are distributed in the respective Districts according to previous residence; those of persons not belonging to any of them being altogether excluded from calculation.

NAMES OF SANITARY DISTRICTS.	Corrected Popula- tion of Sanitary Districts estimated to middle of 1896.‡	Births Registered 1896.	Corrected Deaths, 1896.‡	Corrected Death Rate per 1,000 living.			Corrected average Death Rate per 1,000 for the ten years	
				1896 ‡	1895 ‡	1894 ‡	1874-83 ‡ inclusive.	1884-93 ‡ inclusive.
NEWBURY RURAL ... ..	10,302	254	158	15.0	18.2	16.1	18.32	16.98
NEWBURY URBAN ... ..	11,354	279	136	11.7	15.5	15.1	19.08	18.44
HUNGERFORD RURAL ... ..	9,554	247	110	11.3	15.4	16.1	17.04	17.43
RAMSBURY RURAL ... ..	6,970	192	82	11.5	11.3	15.7		
ABINGDON RURAL ... ..	9,270	235	117	12.4	15.4	13.4	17.41	14.86
CULHAM RURAL ... ..	2,638	72	40	14.9	18.1	12.7		
ABINGDON URBAN ... ..	6,363	165	91	14.0	18.3	14.2	19.93	18.07
WALLINGFORD RURAL ... ..	6,234	142	84	13.2	12.9	14.4	17.19	17.01
CROWMARSH RURAL ... ..	5,066	120	85	16.5	19.6	12.7		
WALLINGFORD URBAN ... ..	2,957	64	36	11.9	14.6	11.6	18.70	19.12
BRADFIELD RURAL ... ..	15,744	378	185	11.5	13.5	14.5	16.50	14.69
GORING RURAL ... ..	3,138	66	38	11.9	9.6	11.7		
COOKHAM RURAL ... ..	10,474	283	132	12.4	15.0	15.6	15.81	16.11
MAIDENHEAD URBAN ... ..	11,745	325	169	14.1	12.8	13.4	16.15	15.43
EASTHAMPSTEAD RURAL. ...	13,660	367	158	11.3	13.0	11.3	13.43	12.70
WINDSOR RURAL ... ..	13,614	326	138	10.0	13.5	12.1	16.23	13.81
EGHAM RURAL ... ..	10,568	287	113	10.5	12.6	16.1		
TOTAL ... ..	149,750	3,802	1,872	Mean Rate for Comb. 12.3 San. Dist.	14.5	14.1	16.96	15.63



# BERKSHIRE COMBINED SANITARY DISTRICT. 1896.

## TABLE II.

Number of persons living at various groups of ages in the Rural and Urban Districts of the Berkshire Combined Sanitary District, compiled from the returns of the Census of 1891.

SANITARY DISTRICTS.	Persons.	Males.	Females.	Under 1 year.	Above 1 year under 5 years.	TOTAL under 5 years.	5 to 15.	15 to 25.	25 to 65.	Over 65 years.
NEWBURY RURAL ...	10,675	5,181	5,494	234	1,018	1,252	2,541	1,665	4,332	885
NEWBURY URBAN ...	11,002	5,096	5,906	254	965	1,219	2,624	1,973	4,402	784
HUNGERFORD RURAL ...	17,017	8,556	8,461	429	1,684	2,113	4,001	2,847	6,651	1,405
ABINGDON RURAL ...	11,971	6,070	5,901	278	1,215	1,493	3,052	1,984	4,587	855
ABINGDON URBAN ...	6,557	3,044	3,513	157	604	761	1,586	1,153	2,588	469
WALLINGFORD RURAL ...	11,717	5,888	5,829	234	1,105	1,339	2,758	1,849	4,922	849
WALLINGFORD URBAN ...	2,989	1,472	1,517	64	237	301	650	525	1,296	217
BRADFIELD RURAL ...	18,017	9,181	8,836	408	1,768	2,176	4,419	3,110	7,142	1,170
COOKHAM RURAL ...	9,861	4,819	5,042	230	948	1,178	2,322	1,653	4,082	626
MAIDENHEAD URBAN ...	10,607	5,131	5,476	271	1,041	1,312	2,416	1,996	4,357	526
EASTHAMPSTEAD RURAL	13,704	6,846	6,858	304	1,247	1,551	3,095	2,317	5,990	751
WINDSOR RURAL ...	23,335	11,097	12,238	568	2,188	2,756	5,227	4,259	10,034	1,059
TOTAL ...	147,452	72,381	75,071	3,431	14,020	17,451	34,691	25,331	60,383	9,596





# WILTSHIRE COMBINED SANITARY DISTRICT. 1896.

TABLE III.

1000 of persons living at groups of ages, calculated on the basis of the Census returns of 1891.

DISTRICT.	Under 1 year.	1 to 5 years.	TOTAL under 5 yrs.	5 to 15 years.	15 to 25 years.	25 to 65 years.	Over 65 years.
...	98.3	15.7	31.2	2.4	1.8	10.4	73.4
...	157.5	8.3	39.4	1.1	3.6	8.8	49.7
RURAL ...	74.3	8.3	21.8	2.0	2.1	9.6	53.4
...	104.3	18.9	34.8	2.3	4.5	7.4	62.0
...	133.8	21.5	44.7	5.6	3.5	5.8	61.8
RURAL ...	158.1	15.4	40.3	3.6	3.2	7.3	74.2
URBAN ...	109.4	12.6	33.2	4.6	1.9	8.5	50.7
L ...	80.9	14.1	26.6	3.2	3.2	10.5	56.4
...	108.7	5.3	25.5	2.6	4.2	9.6	78.3



# BERKSHIRE COMBINED SANITARY DISTRICT. 1896.

## TABLE IV.

Tables of Population, Registered Births, and of New Cases of Infectious Sickness coming to the knowledge of the Medical Officer of Health during the year 1896, classified according to Diseases and Ages. The Infectious Diseases Notification Act is in force in every District except as otherwise stated.

NAMES OF SANITARY DISTRICTS	POPULATION AT ALL AGES.**		Registered Births.	NEW CASES OF SICKNESS IN EACH LOCALITY, COMING TO THE KNOWLEDGE OF THE MEDICAL OFFICER OF HEALTH.												MONTHLY NUMBER OF CASES NOTIFIED.													
	Census 1891.	Corrected Esti- mate to middle of 1896.		Smallpox.	Scarlatina.	Diphtheria.	Membranous Croup.	FEVERS.					Cholera.	Erysipelas.	TOTAL.		Smallpox.	Scarlatina.	Diphtheria.	Membranous Croup.	FEVERS.					Cholera.	Erysipelas.	TOTAL.	
								Typhus.	Enteric or Typhoid.	Continued.	Relapsing.	Puerperal.									Typhus.	Enteric or Typhoid.	Continued.	Relapsing.	Puerperal.				
NEWBURY RURAL ... ..	10454	10302	M. 127 F. 127 254	...	5	2	...	...	8	...	...	...	...	11	26														
NEWBURY URBAN ... .. Notification Act not adopted	11002	11354	151   128 279	2	...	...	...	...	..	...	...	...	...	3	5	January ...	...	51	10	1	...	8	...	...	...	...	6	86	
HUNGERFORD RURAL ...	9629	9554	123   124 247	...	37	...	...	...	1	...	...	...	...	9	47	February...	...	36	20	...	...	1	1	...	...	...	6	64	
RAMSBURY RURAL ...	7388	6970	111   81 192	...	28	9	...	...	1	1	...	...	...	8	47	March ...	2	27	2	1	...	3	...	...	2	...	8	45	
ABINGDON RURAL ...	9279	9270	117   118 235	...	34	3	...	...	3	...	...	...	...	1	41	April ...	...	18	7	...	...	7	...	...	...	...	7	39	
CULHAM RURAL ... ..	2692	2638	39   33 72	...	7	11	...	...	1	...	...	...	...	...	19	May ...	...	...	41	9	...	...	1	...	...	...	4	55	
ABINGDON URBAN ...	6557	6363	85   80 165	...	3	2	...	...	5	...	...	...	...	4	14	June ...	...	...	29	4	...	...	1	...	...	2	...	3	39
WALLINGFORD RURAL ...	6567	6234	66   76 142	...	48	3	...	...	6	...	...	2	...	3	62	July ...	...	...	21	17	...	...	6	...	...	1	...	6	51
CROWMARSH RURAL ...	5150	5066	64   56 120	...	17	15	...	...	2	...	...	...	...	6	40	August ...	...	...	21	9	...	...	5	...	...	1	...	5	41
WALLINGFORD URBAN ...	2989	2957	32   32 64	...	44	1	...	...	...	...	...	1	...	...	46	September.	...	47	3	...	...	6	...	...	1	...	5	62	
BRADFIELD RURAL ...	15183	5744	192   186 378	...	94	18	...	...	5	...	...	...	...	1	118	October ...	...	...	37	4	...	...	5	...	...	1	...	5	52
GORING RURAL ... ..	2834	3138	32   34 66	...	18	1	...	...	1	...	...	1	...	2	23	November.	...	43	10	...	...	2	...	...	...	...	8	63	
COOKHAM RURAL ... ..	9861	10474	154   129 283	...	11	14	...	...	2	...	...	1	...	1	29	December.	...	42	11	...	...	...	...	...	1	...	8	62	
MAIDENHEAD URBAN ... Notification Act not adopted	10607	11745	150   175 325	...	12	4	...	...	...	...	...	...	...	1	17	TOTAL...	2	413	106	2	...	45	1	...	9	...	71	649	
EASTHAMPSTEAD RURAL	13704	13660	184   183 367	...	21	5	2	...	4	...	...	1	...	17	50														
WINDSOR RURAL ... ..	12599	13614	174   152 326	...	20	8	...	...	3	...	...	1	...	3	35														
EGHAM RURAL ... ..	10187	10568	168   119 287	...	19	5	...	...	3	...	...	2	...	1	30														
TOTALS ... ..	146682	149750	1969   1833 3802	2	418	101	2	...	45	1	...	9	...	71	649														

\*\* In the Column "Corrected Estimated Population 1896," the Special Inmates of Hospitals and of Lunatic Asylums have been excluded, and the Pauper Inmates of Union Houses have been distributed to the Sanitary Districts included in the Union in proportion to their respective populations.





# BERKSHIRE COMBINED SANITARY DISTRICT. 1896.

## TABLE V.

TABLE OF DEATHS REGISTERED during the year 1896, in the Combined Rural and Urban Sanitary District of Berkshire, classified according to Diseases, Ages, and Localities.

NAMES OF SANITARY DISTRICTS.	MORTALITY FROM ALL CAUSES, AT SUBJOINED AGES.							MORTALITY FROM SUBJOINED CAUSES.																																			
	At all ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.	Small Pox.	Scarlatina.	Diphtheria.	Membranous Croup.	FEVERS.					Typhus.	Enteric or Typhoid.	Continued.	Relapsing.	Puerperal.	Cholera.	Erysipelas.	Pyæmia.	Measles.	Whooping Cough.	Diarrhoea and Dysentery.	Rheumatic Fever.	Ague.	Influenza.	Cancer.	Phthisis.	Bronchitis, Pneumonia & Pleurisy.	Heart Disease.	Injuries.	*(Under 5 years)		All other Diseases.	TOTAL.				
												Wasting Diseases.	Convulsive Diseases.	Under 5 years	Above 5 years	Under 5 years																				Above 5 years							
NEWBURY RURAL ... ..	145	23	16	6	3	44	53	...	...	1	...	...	2	...	...	...	...	...	...	...	...	...	...	...	1	1	2	1	...	5	6	8	18	13	4	18	6	3	56	39	106		
NEWBURY URBAN ... ..	146	40	8	3	7	37	51	...	...	2	...	...	1	...	...	...	...	2	...	...	...	...	2	...	...	...	4	...	...	...	10	8	18	14	3	22	8	6	48	48	98		
HUNGERFORD RURAL ... ..	109	18	8	6	4	31	42	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	2	6	5	13	10	3	10	9	2	46	26	83		
RAMSBURY RURAL ... ..	78	14	5	2	1	23	33	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	2	6	4	16	7	3	7	3	1	27	19	59		
ABINGDON RURAL ... ..	107	23	15	7	5	19	38	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	7	5	2	1	...	...	4	10	13	10	4	15	1	3	30	38	69		
CULHAM RURAL ... ..	34	6	6	2	2	13	5	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	2	5	6	2	3	5	1	1	7	12	22			
ABINGDON URBAN ... ..	102	21	14	10	4	15	38	...	...	1	...	...	2	...	...	1	...	...	1	6	...	7	1	...	...	...	...	...	...	2	6	11	9	3	10	5	2	35	35	67			
WALLINGFORD RURAL ... ..	125	24	10	1	4	44	42	...	...	1	...	...	1	...	...	1	...	...	2	3	6	2	...	...	...	...	...	...	...	6	16	10	16	...	14	5	3	39	34	91			
CROWMARSH RURAL ... ..	80	13	8	9	5	19	26	...	1	6	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	5	18	10	7	...	6	3	1	21	21	59			
WALLINGFORD URBAN ... ..	49	7	3	4	2	12	21	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	2	4	6	11	2	4	3	...	15	10	39			
BRADFIELD RURAL ... ..	166	29	17	12	5	50	53	...	4	4	...	...	...	...	3	...	...	1	...	3	1	...	...	...	...	3	1	...	...	2	11	12	20	16	5	17	15	2	50	46	120		
GORING RURAL ... ..	35	4	6	...	3	10	12	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	4	5	6	2	1	3	1	...	9	10	25		
COOKHAM RURAL ... ..	117	25	2	6	7	33	44	...	...	6	...	...	2	...	...	1	...	1	1	...	1	1	...	...	...	...	...	...	...	7	8	11	22	5	14	4	2	31	27	90			
MAIDENHEAD URBAN ... ..	181	39	25	9	9	57	42	...	...	9	...	...	1	...	...	...	...	...	1	5	5	1	2	...	...	1	5	5	1	2	...	1	16	8	27	20	16	21	5	6	37	64	117
EASTHAMPSTEAD RURAL	165	26	13	9	6	56	55	...	2	1	2	...	...	...	2	...	...	...	...	4	3	3	...	...	...	4	3	3	...	...	5	7	15	19	18	7	8	11	3	55	39	126	
WINDSOR RURAL ... ..	157	27	19	7	13	46	45	...	...	4	...	...	...	...	...	...	...	...	...	2	1	...	2	...	...	...	2	...	...	1	6	19	21	20	4	14	6	9	48	46	111		
EGHAM RURAL ... ..	129	23	5	6	7	56	32	...	1	1	...	...	1	...	...	...	...	...	...	...	1	1	...	...	...	...	1	1	...	...	7	6	11	10	14	5	15	5	3	48	28	101	
TOTAL ... ..	1925	362	180	99	87	565	632	...	12	38	2	...	10	...	9	...	3	6	29	28	28	7	...	28	106	162	235	201	68	203	91	47	601	544	1383								

\* "Wasting Diseases" (under 5 years) include:—Scrofula, Rickets, Tabes, Marasmus, Debility, Want of Breast Milk, Premature Birth and Malformations.  
 "Convulsive Diseases" include:—Hydrocephalus, Infantile Meningitis, Convulsions, Laringismus, and Teething.





BERKSHIRE COMBINED SANITARY DISTRICT. 1896.

TABLE VI.

TABLE VI.

TABLE OF "CORRECTED" DEATHS occurring during the Year 1896, in the Combined Rural and Urban Sanitary District of Berkshire, classified according to Diseases, Ages, and Localities, showing also the estimated "corrected" Population of such Localities, and the Deaths in Public Institutions therein.

[illegible]

\* "Wasting Diseases" (under 5 years) include:—Scrofula, Rickets, Tabes, Marasmus, Debility, Want of Breast Milk, Premature Birth and Malformations.  
"Convulsive Diseases" include:—Hydrocephalus, Infantile Meningitis, Convulsions, Laryngismus, and Teething.





# BERKSHIRE COMBINED SANITARY DISTRICT. 1896.

## TABLE VII.

NAMES OF SANITARY DISTRICTS.	Birth Rate per 1,000 living.	Corrected Death Rate per 1,000 living.	Percentage Rate of Corrected Deaths to Births.	Percentage Rate of Corrected Deaths under 1 year to Births.	Percentage of Total Corrected Mortality occurring at various groups of Ages.						
					Under 1 year	1 to 5	TOTAL. Under 5.	5 to 15	15 to 25	25 to 65	Over 65
NEWBURY RURAL ... ..	24.2	15.0	62.2	9.1	14.6	10.1	24.7	3.8	1.9	28.5	41.1
NEWBURY URBAN ... ..	24.1	11.7	48.7	14.3	29.4	5.9	35.3	2.2	5.1	28.6	28.6
HUNGERFORD RURAL ... ..	25.3	11.3	44.6	7.3	15.4	8.1	24.5	5.4	4.5	30.9	34.5
RAMSBURY RURAL ... ..	27.0	11.5	42.7	7.3	17.1	6.1	23.2	2.4	1.2	28.0	45.1
ABINGDON RURAL ... ..	24.9	12.4	49.8	9.8	19.7	13.7	33.4	6.0	5.1	17.1	38.5
CULHAM RURAL ... ..	26.8	14.9	52.8	8.3	15.0	17.5	32.5	5.0	7.7	35.0	20.0
ABINGDON URBAN ... ..	25.4	14.0	55.1	12.7	23.1	14.3	37.4	9.9	4.4	16.5	31.9
WALLINGFORD RURAL ... ..	22.1	13.2	59.1	16.9	28.6	11.9	40.5	1.2	1.2	19.0	38.1
CROWMARSH RURAL ... ..	23.2	16.5	70.8	10.8	15.3	8.2	23.5	10.6	5.9	23.5	36.5
WALLINGFORD URBAN ... ..	21.2	11.9	56.2	10.9	19.5	8.3	27.8	8.3	2.8	30.6	30.6
BRADFELD RURAL ... ..	23.6	11.5	48.9	7.7	15.7	10.3	26.0	7.0	3.9	34.0	29.2
GORING RURAL ... ..	20.6	11.9	57.6	6.1	10.5	15.8	26.3	2.6	7.9	31.6	31.6
COOKHAM RURAL ... ..	26.5	12.4	47.7	8.7	18.9	3.8	22.6	4.5	5.3	30.3	37.1
MAIDENHEAD URBAN ... ..	27.1	14.1	52.0	12.0	23.1	13.0	36.1	5.3	4.7	30.2	23.7
EASTHAMPSTEAD RURAL ... ..	26.4	11.3	43.1	7.1	16.4	8.2	24.6	5.7	3.8	29.7	36.1
WINDSOR RURAL ... ..	23.5	10.0	42.3	8.3	19.6	13.8	33.4	4.3	5.8	29.0	27.5
EGHAM RURAL .. ...	26.6	10.5	39.4	8.0	20.4	4.4	24.8	5.3	6.2	40.7	23.0
MEAN RATES FOR 1896 ... ..	24.9	12.3	49.2	9.5	19.3	9.7	29.0	5.3	4.4	28.6	32.6
„ „ 1895 ... ..	26.1	14.5	55.4	10.5	18.9	7.4	26.3	3.9	4.1	28.0	37.7
„ „ 1894 ... ..	24.9	14.1	56.7	9.8	17.3	9.9	27.2	3.5	4.6	28.0	36.6
Average yearly rate of the ten years 1874-83 inclusive }	30.46	16.96	55.76	10.74	19.04	11.44	30.48	5.07	4.73	25.84	34.07
„ „ 1884-93 „	27.80	15.63	56.27	10.22	18.22	9.38	27.60	4.58	4.33	24.17	39.25

Deaths in Hospitals, in Union Houses, and in Public Lunatic Asylums are distributed in the respective Sanitary Districts according to previous residence. See Note TABLE I.



# BERKSHIRE COMBINED SANITARY DISTRICT. 1896.

## TABLE VIII.

NAMES OF SANITARY DISTRICTS.	Corrected Death Rates per 1,000 living, for					Percentage of Corrected Deaths at all ages, due to				Percentage of Corrected Deaths under 5 years, due to	
	*Chief Zymotic Diseases.	Influenza	Phthisis.	Pulmonary Inflamma- tions.	Wasting & Convulsive Dis. under 5	*Chief Zymotic Diseases.	Phthisis.	Pulmonary Inflamma- tions.	Wasting & Convulsive Dis. under 5	*Chief Zymotic Diseases.	Wasting & Convulsive Diseases.
NEWBURY RURAL ... ..	·7	·5	·9	1·8	2·3	4·4	5·7	12·0	15·2	7·7	61·5
NEWBURY URBAN ... ..	·6	...	·7	1·5	2·9	5·1	5·9	12·5	25·0	8·3	71·7
HUNGERFORD RURAL ... ..	·5	·2	·6	·7	2·5	4·5	5·4	10·0	10·0	7·4	70·4
RAMSBURY RURAL ... ..	·3	·3	·6	2·5	1·4	2·4	4·9	21·0	12·2	5·2	52·6
ABINGDON RURAL ... ..	1·6	...	1·3	1·5	1·8	12·4	10·3	11·1	14·5	30·8	43·6
CULHAM RURAL ... ..	1·1	...	1·9	2·2	2·2	7·7	12·5	15·0	15·0	8·3	50·0
ABINGDON URBAN ... ..	2·3	...	·9	1·5	2·2	16·5	6·6	11·0	15·4	32·3	41·2
WALLINGFORD RURAL ... ..	2·0	...	·6	1·1	3·0	15·5	4·8	8·3	22·6	32·3	55·9
CROWMARSH RURAL ... ..	1·4	·2	3·7	2·1	1·7	8·2	22·4	12·9	9·0	15·0	45·0
WALLINGFORD URBAN ... ..	·7	...	1·0	1·6	2·3	5·6	8·3	13·8	19·4	10·0	70·0
BRADFIELD RURAL ... ..	·8	·1	·8	1·5	2·0	7·0	6·5	13·7	17·3	20·8	66·6
GORING RURAL ... ..	·9	·6	1·6	2·2	1·2	7·9	13·2	18·0	10·5	20·0	40·0
COOKHAM RURAL ... ..	1·0	...	·8	1·3	1·7	8·3	6·8	10·6	13·6	13·3	60·0
MAIDENHEAD URBAN ... ..	1·7	·1	·6	1·9	2·2	11·8	4·1	13·6	15·4	27·9	42·6
EASTHAMPSTEAD RURAL ...	1·1	·4	·9	1·2	1·4	9·5	8·2	10·7	12·0	23·1	48·7
WINDSOR RURAL ... ..	·5	·1	·8	1·5	1·4	5·1	8·0	15·2	14·5	8·7	43·5
EGHAM RURAL ... ..	·5	·6	1·1	·5	1·8	4·4	10·6	4·4	17·7	10·7	71·4
MEAN RATE FOR 1896 ... ..	1·0	·2	·9	1·5	1·9	8·1	7·7	12·3	15·7	18·0	54·0
„ „ 1895 ... ..	·9	·6	·9	2·0	2·1	6·5	6·3	13·7	14·5	17·8	55·1
„ „ 1894 ... ..	1·1	·4	1·1	2·4	1·5	8·2	8·1	17·1	10·9	28·9	40·3
Average yearly rate of the ten years 1874-83 inclusive }	1·80	...	1·64	2·68	...	10·94	9·67	15·61	...	Rate of 5 yrs. 1889-93 inclusive. } 17·52	49·70
„ „ 1884-93 „	1·21	...	1·22	2·55	2·18	7·75	7·82	16·12	14·03		

\* Including small pox, measles, scarlet fever, diphtheria (and croup), whooping cough, fever (typhus, typhoid and other continued), diarrhoea (and dysentery). (For list of Wasting and Convulsive Diseases, see foot-note Table V.)





# BERKSHIRE COMBINED SANITARY DISTRICT. 1896.

## TABLE IX.

Returns, by Inspectors of Nuisances, of Sanitary Works carried out in the Year 1896.

Name of District ... ..			Newbury Rural	Newbury Urban	Hungerford Rural	Ramsbury Rural	Abingdon Rural	Culham Rural	Abingdon Urban	Wallingford Rural	Crowmarsh Rural	Wallingford Urban.	Bradfield Rural	Goring Rural	Cookham Rural	Maidenhead Urban	East-hampstead Rural	Windsor Rural	Egham Rural	TOTAL.
Area in Acres ... ..			42,866	1,829	Approximating 47,000	50,000	40,860	13,689	730	23,759	18,558	380	55,215	9,155	27,803	2,123	27,033	12,143	7,786	380,367
Name of Inspector of Nuisances... ..			W. Church.	E. A. Stickland.	J. Pinniger.	J. Pinniger.	T. B. Warren.	S. C. Tompkins.	G. Winship.	R. B. Lay.	B. Tubb.	S. C. Johns.	T. Windle.	T. Windle.	G. A. Millin.	J. H. Barford.	H. Lloyd.	G. Watts.	W. Menzies.	
1.	No. of Premises visited ... ..		1470	624	1172	1011	388	112	235	586	334	262	793	99	340	801	560	800	229	9816
2.	„ Inspections for Sanitary Survey ... ..		...	...	...	...	...	...	6	59	72	...	...	...	...	34	...	...	29	200
3.	„ Complaints to Sanitary Authority ... ..		...	...	...	...	15	...	1	...	3	...	3	...	15	...	4	...	9	50
4.	„ Nuisances reported ... ..		176	22	147	145	92	35	38	360	179	49	60	6	106	193	460	594	98	2760
5.	„ Formal Notices served ... ..		3	22	63	43	79	4	38	60	11	1	...	...	8	19	198	25	5	579
6.	„ Summonses heard before Justices ... ..		1	2	...	...	3	...	1	...	...	...	...	...	1	...	3	1	...	12
7.	Nuisances abated (No. of Premises) ... ..		160	22	136	117	71	32	38	306	69	49	42	6	99	186	442	490	81	2346
8.	{ As to Privies, W.C.'s, &c. ... ..		49	15	7	14	27	8	6	158	47	...	14	1	16	142	80	41	47	672
9.	{ „ Drains ... ..		13	2	9	17	33	1	2	44	9	...	22	1	23	19	262	172	20	649
10.	{ „ Pigs or other animals ... ..		26	3	6	4	5	4	30	7	1	3	8	1	...	11	10	13	4	136
11.	{ „ Cow-, Slaughter-, & Bake-houses ... ..		10	2	2	2	4	5	...	5	...	...	...	1	...	8	4	9	...	52
12.	{ „ Deficient or impure water ... ..		14	2	2	4	21	1	1	6	9	...	3	1	15	10	21	27	35	172
13.	{ „ Foul, dilapidated, and over-crowded houses ... ..		18	12	28	30	39	9	...	23	9	...	26	1	36	...	20	49	...	300
14.	{ „ Houses closed as unfit for habitation ... ..		1	6	4	5	2	...	...	4	5	...	11	...	7	...	5	5	...	55
15.	{ „ Polluted ditches, streams, &c. ... ..		12	...	2	1	14	2	...	6	2	...	9	...	12	2	47	32	5	146
16.	{ „ Other nuisances ... ..		17	4	3	10	3	2	...	53	...	...	...	1	...	...	...	169	...	262
17.	{ No. of premises disinfected on account of infectious diseases... ..		11	2	36	27	27	9	7	42	10	29	69	9	21	3	16	34	12	364
18.	{ „ Samples of water, &c. sent to M.O.H. ... ..		13	7	1	1	8	3	8	5	1	...	2	...	4	5	12	26	4	100
19.	{ „ Earth or dry closets provided ... ..		15	...	5	8	3	7	...	115	13	...	14	...	8	...	20	2	1	211
20.	{ „ Water supply provided, wells sunk ... ..		2	28	...	2	...	...	31	5	...	...	4	...	15	12	32	23	34	188
21.	{ „ Cow-houses, Dairies, &c. Registered ... ..		8	...	2	1	1	4	...	2	...	...	...	3	...	...	27	2	1	51
22.	{ „ „ „ inspected ... ..		22	9	25	46	5	6	...	21	34	...	13	...	14	16	27	12	8	258
23.	{ „ Piggeries ... ..		15	31	...	...	10	22	30	20	3	22	...	...	4	40	...	20	5	222
24.	{ „ Slaughter-houses ... ..		12	7	8	7	5	2	5	4	6	5	3	2	4	14	10	10	5	109
25.	{ „ Bake-houses ... ..		9	12	23	23	18	6	14	5	9	6	6	1	17	13	...	12	5	179
26.	{ „ Canal Boats ... ..		...	16	...	...	10	5	13	6	5	...	1	...	...	...	...	16	2	74
27.	{ Houses reported under “Housing of Working Classes Act” Sect. 30 ... ..		...	46	3	9	1	...	1	5	6	...	...	...	6	...	11	6	22	116

